HOLLYWOOD DOG PARK

9300 BLOCK OF 51 ST AVENUE, COLLEGE PARK, MARYLAND 20740 TAX MAP: 0025 00F3 - PARCEL: 0134 - LIBER: 03087 - FOLIO: 00018

GENERAL STORM DRAIN AND PAVING NOTES

-) INFORMATION CONCERNING UNDERGROUND UTILITIES WAS OBTAINED FROM AVAILABLE RECORDS, BUT THE CONTRACTOR MUST DETERMINE THE EXACT LOCATION AND ELEVATION OF THE MAINS BY DIGGING TEST PITS BY HAND OR VACUUM, AT UTILITY CROSSING WELL IN ADVANCE OF TRENCHING. IF CLEARANCE TO WATER AND SEWER LINES ARE LESS THAN SHOWN ON THIS PLAN, OR TWELVE (12) INCHES, CONTACT THE DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION (DPW&T) INSPECTOR BEFORE PROCEEDING WITH
- 2) ALL STORM DRAINS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE LATEST EDITION OF THE STORMWATER MANAGEMENT STANDARDS AND SPECIFICATION OF PRINCE GEORGE'S COUNTY DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION.
- 3) FOR TYPES OF STORM DRAIN STRUCTURES, REFER TO THE LATEST STANDARDS DETAILS OF PRINCE GEORGE'S COUNTY DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION, UNLESS
- 4) ALL ROADWAY CONSTRUCTION SHALL BE PREFORMED IN ACCORDANCE WITH THE FOLLOWING: THE DPW&T SPECIFICATIONS AND STANDARDS FOR ROADWAYS AND BRIDGES: THE PRINCE GEORGE'S COUNTY CODE, SUBTITLE 23, ROAD ORDINANCE; AND THE PRINCE GEORGE'S COUNTY POLICY AND SPECIFICATION FOR UTILITY INSTALLATION AND MAINTENANCE.
- 5) PRIOR TO DIGGING WITHIN THE PUBLIC RIGHT-OF-WAY, CALL "MISS UTILITY" TOLL FREE AT (800)257-7777 FOR UTILITY LOCATION AT LEAST 48 HOURS BEFORE BEGINNING
- 6) PRIOR TO PERMIT ISSUANCE AND STARTING ANY WORK SHOWN ON THIS PLAN. THE PERMITTEE SHALL ARRANGE A PRE-CONSTRUCTION WITH THE DPW&T INSPECTOR BY CALLING (301) 883-5730. AN INITIAL INSPECTION IS REQUIRED PRIOR TO FULL MASS GRADING OF THE SITE.
- 7) IN ACCORDANCE WITH SECTION 23-128, THE COUNTY'S ROAD ORDINANCE, A PROJECT SIGN SHALL BE POSTED PROMINENTLY DESCRIBING THE FOLLOWING: -SUBDIVISION NAME (AS SHOW NON PERMIT APPLICATION) OWNER/PERMITTEE NAME -OWNER/PERMITTEE ADDRESS AND PHONE
- -DPW&T PERMIT NUMBER 8) ALL ELEVATION SHOWN ON THIS PLAN ARE IN ACCORDANCE WITH THE FOLLOWING HORIZONTAL - MARYLAND COORDINATE SYSTEM (STATE PLAN GRID) BASED ON NORTH

AMERICAN DATUM OF 1983 (NAD 83): VERTICAL - NORTH AMERICAN VERTICAL DATUM OF 1988

- 9) TEMPORARY TRAFFIC CONTROL AND PERMANENT TRAFFIC SIGNS SHALL CONFORM TO THE LATEST EDITION OF THE FEDERAL HIGHWAY ADMINISTRATION'S MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD)
- 10) IT SHALL BE THE RESPONSIBILITY OF THE PERMITTEE TO ARRANGE FOR THE ADJUSTMENT OR RELOCATION OF ALL UTILITIES.
- 11) ALL UNSUITABLE MATERIAL MUST BE REMOVED AND REPLACED WITH SUITABLE MATERIAL TO A DEPTH AS DIRECTED BY THE GEOTECHNICAL ENGINEER, THE DPW&T INSPECTOR, AND/OR THE DEPARTMENT'S ENGINEER.
- 12) EXCAVATION AND PLACEMENT OF FILL MATERIAL SHALL BE PERFORMED UNDER THE SUPERVISION OF A MARYLAND-LICENSED ENGINEER.
- 13) THE PERMITTEE WILL BE REQUIRED TO FURNISH COMPACTION REPORTS CERTIFIED BY A MARYLAND-LICENSED ENGINEER ON EACH LAYER OF FILL MATERIAL PRIOR TO PLACING
- 14) DURING THE PLACEMENT OF A STANDARD PAVEMENT SECTION, NO PAVEMENT COURSE OR STONE LIFT SHALL BE PLACED UNTIL THE UNDERLYING COURSE OR SUBGRADE IS APPROVED BY THE DPW&T INSPECTOR. THE APPROVAL SHALL EXPIRE IF TRAFFIC OR INCLEMENT
- 15) AS SOON AS THE ASPHALT BASE COURSE IS APPROVED, THE INTERMEDIATE ASPHALT COURSE SHALL BE PLACED IMMEDIATELY OVER IT TO FORM A PROTECTIVE SEAL.
- 16) TEMPORARY STREET NAME SIGN INSTALLATION AND MAINTENANCE IS THE OBLIGATION OF THE PERMITTEE ONCE BASE PAVING IS COMPLETED.
- 17) WHERE ROADWAY CONSTRUCTION IS ON OR IN THE VICINITY OF AN EXISTING ROAD, IN-KIND PAVEMENT MARKINGS AND STRIPPING REPLACEMENT (E.G., THERMOPLASTIC, PAINTED, ETC.) ARE REQUIRED. ALSO APPROPRIATE PAVEMENT MARKING AND STRIPING SHALL BE PROVIDED IN THE AREA OF PAVEMENT WIDENING AND/OR RECONSTRUCTION AND/OR OVERLAY OF AN
- 18) SAW CUT AND MILL A 2-INCH DEEP, 10-FOOT-WIDE NOTCH EXISTING EDGE OF PAVEMENT WHERE IT IS NECESSARY TO CONNECT TO OR TO EXTEND AN EXISTING ROAD. OVERLAY AT POINT OF TIE-IN TO ENSURE A SMOOTH TRANSITION AND POSITIVE DRAINAGE.
- 19) WHERE IT IS NECESSARY TO WIDEN AN EXISTING ROAD, AND MILLING AND OVERLAY REQUIREMENTS HAVE BEEN WAIVED OR REDUCED, THE WIDENING AND THE EDGE TREATMENT OF EXISTING ROAD SHALL BE CONSTRUCTED IN ACCORDANCE WITH DPW&T STANDARD NO. 300.20 UNLESS OTHERWISE DIRECTED BY THE DEPARTMENT.
- 20) ALL RESIDENTIAL ROADWAY FILLET RADII SHALL BE AT LEAST 37 FEET, UNLESS OTHERWISE NOTED. ROADWAYS WITH HIGHER CLASSIFICATION REQUIRE 45 FEET AND/OR 50 FEET RADII.
- 21) AN UNDERDRAIN SYSTEM IS REQUIRED FOR THE FULL LENGTH OF ALL PROPOSED AND MODIFIED ROADWAYS, ON BOTH SIDES, AND TO THE LIMITS OF THE PERMIT SHOWN ON THIS
- 22) ALL CURB AND GUTTER SHALL BE CONSTRUCTED IN ACCORDANCE WITH DPW&T STANDARDS NO. 300.01 THROUGH 300.04 UNLESS OTHERWISE DIRECTED BY THE DEPARTMENT.
- 23) BRICK CHANNELIZATION IS REQUIRED IN ALL PUBLIC DPW&T STORM DRAIN STRUCTURES. CONCRETE CHANNELIZATION IS NOT ALLOWED.
- 24) POSITIVE DRAINAGE SHALL BE MAINTAINED THROUGHOUT THE AREA COVERED BY THIS PERMIT AND THROUGH ADJACENT PROPERTY FRONTAGES.
- 25) ALL UNPAVED AREAS WITHIN THE RIGHT-OF-WAY SHALL BE SODDED.
- 26) ALL SIDEWALK RAMPS SHOWN ON THIS PLAN TO BE CONSTRUCTED IN ACCORDANCE WITH DPW&T STANDARDS 300.05 THROUGH 300.10 AND SHALL COMPLY WITH THE LATEST REVISION TO THE FEDERAL ACCESSIBILITY GUIDELINES OF AMERICANS WITH DISABILITIES ACT.
- 27) ALL SIDEWALKS SHOWN ON THIS PLAN SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE LATEST DPW&T STANDARDS AND SHALL COMPLY WITH THE LATEST REVISION OF THE FEDERAL ACCESSIBILITY GUIDELINES OF AMERICANS WITH DISABILITY ACT
- 28) ALL SIDEWALKS (EXCEPT AS NOTED HEREIN) ARE TO BE CONSTRUCTED UNDER THIS STREET
- 29) SIDEWALK ALONG FRONTAGES OF OPEN-SPACE PARCELS AND THOSE NOT COVERED BY A SINGLE-FAMILY BUILDING PERMIT SHALL BE CONSTRUCTED UNDER THIS STREET

30) THE WIDTH OF RESIDENTIAL DRIVEWAY APRON AT THE PROPERTY LINE SHALL NOT BE LESS THAN THE WIDTH OF THE ON-SITE PARKING PAD AT ITS WIDEST POINT, A MAXIMUM WIDTH OF 20 FEET, AND A MINIMUM WIDTH OF 10 FEET. A RESIDENTIAL DRIVEWAY APRON FLARE SHALL NOT BE CONSTRUCTED CLOSER THAN 3.5 FEET TO THE NEAREST ABUTTING PROPERTY LINE.

- 31) ALL DRIVEWAY APRONS TO BE CONSTRUCTED BY THE SITE DEVELOPER.
- 32) ENSURE THAT STREET TREES ARE NO CLOSER THAN 1 FOOT TO THE RIGHT-OF-WAY LINE, IN AN OPEN SPACE SECTION CONFIGURATION, AND NO CLOSER THAN 15 FEET FROM STREET LIGHT OR POLE. AND OF APPROPRIATE HEIGHT SO AS NOT TO INTERFERE WITH EXISTING OR PROPOSED OVERHEAD UTILITY LINES. ALL STREETSCAPE PLANTING SHALL BE IN ACCORDANCE WITH DPW&T STANDARDS 600.01 THROUGH 600.20 UNLESS DIRECTED OTHERWISE BY THE DEPARTMENT.
- 33) PAVEMENT QUALITY CONTROL AND CORING WILL BE REQUIRED OF THE PERMITTEE FOR ALL PAVEMENT COURSES USING THE FOLLOWING PROCESS:
- a. PRIOR TO PAVING, PERMITEE/PAVING CONTRACTOR SHALL ELECTRONICALLY NOTIFY INSPECTOR OF PAVING DATES (FAX CAN OCCASIONALLY BE ACCEPTED), AND PROVIDE INFORMATION NEEDED FOR CORE TESTING REQUEST (CTR FORM #1). DPW&T INSPECTOR
- FILLS OUT CTR FORM THEN SENDS IT TO THE MATERIALS LAB b. CONTRACTORS, WHO ARE NEW TO THE MATERIALS LAB, SHALL ELECTRONICALLY SUBMIT QC PLANS TO IT, AND ARRANGE TO BE INITIATED BY IT PRIOR TO PAVING. THE PERMITEE/PAVING CONTRACTOR MUST PROVIDE A MD-CERTIFIED FIELD TECHNICIAN FOR DAILY QUALITY CONTROL (QC) TESTING DURING THE ENTIRE PAVING OPERATION

(NOT JUST ITS END). FIELD TECHNICIAN SHALL BE ADEQUATELY EQUIPPED WITH A PHONE.

- CALIBRATED THERMOMETER, AND A CALIBRATED THIN LIFT DENSITY GAUGE FOR QC AND INSPECTOR-REQUESTED TESTING. HMA DENSITY GAUGES SHALL BE VALIDATED AND CALIBRATED DAILY (SHA 504.03.10.A.2), SO THEIR READINGS CAN BE ACCEPTED FOR COURSE PLACED
- WITH A TOTAL TONNAGE UNDER 200 TONS OR ACCEPTABLE THICKNESS UNDER 1.2" DUE TO PATCHING, WEDGE, LEVELING, BRIDGE DECKS,...ETC. e. FIELD TECH. SHALL CALL THE MATERIALS LAB WITH DATE & TIME OF CORE CUTTING SO IT
- CAN BE WITNESSED, AND CORES & HMA SAMPLES CAN BE RECEIVED ON SITE BY A LAB INSPECTOR RANDOMLY SELECTS & MARKS CORE LOCATIONS IN THE FIELD; NOTES THEM DOWN ON THE CTR STATING STREET'S NAMES AND ADDRESS. LOT #. STA #. OR DISTANCE
- FROM NEAREST INTERSECTION: THEN FAXES THE CTR AGAIN TO THE LAB. AND GIVES TO FIELD TECH BOXES FOR ONLY PR. GEORGE'S COUNTY HMA SAMPLES. FIELD TECH. SHALL CHECK DELIVERY TICKETS FOR COUNTY-REQUIRED INFO, COLLECT AT LEAST ONE BEHIND-THE-PAVER HMA SAMPLE/MIX/DAY. AND CUT AT LEAST 5 CORES/MIX/DAY BUT NO LESS THAN 2 CORES FROM EACH STREET, UNLESS OTHERWISE INSTRUCTED BY AN INSPECTOR; THEN HAND OVER THE SAMPLES TO DPWT INSPECTOR NO
- h. IF, AT THE LAB'S DISCRETION, THE CORE'S CUTTING IS NOT WITNESSES, CORES SHALL BE RECEIVED IN THE LAB, IN ONE BUSINESS DAY FROM PAVING, AS LONG AS THEY ARE NUMBERED AND WELL IDENTIFIED ON FORM # 2 BY: PROJECT NAME, STREET NAME, CORE LOCATION, PAVING DATE, CORING DATE, MIX CODE, ... ETC. IF NOT PROPERLY IDENTIFIED, CORES WILL NOT BE ACCEPTED.

LATER THAN ONE (1) BUSINESS DAY FROM THE PAVING

- IF AT THE LAB'S DISCRETION A BEHIND-THE-PAVER HMA SAMPLE IS NOT RECEIVED ON SITE, IT SHALL BE RECEIVED IN THE LAB ALONG WITH CERTIFIED DELIVERY TICKETS, IN ONE (1) BUSINESS AY, AND BE IDENTIFIED BY: PROJECT NAME, SAMPLING LOCATION, PAVING DATE, AND STATE MIX DESIGNATION. IF NOT PROPERLY LABELED, HMA SAMPLES
- IF CORES ARE TESTED AT AN INDEPENDENT THIRD PARTY'S TESTING LAB, THAT LAB MUST BE AASHTO ACCREDITED FOR SPECIFIC TESTS, AND CAN BE INITIATED BY THE MATERIALS LAB, WHICH SHALL BE NOTIFIED (FAX CAN OCCASIONALLY BE ACCEPTED), OF THE TESTING DATE & TIME SO IT MAY WITNESS THE 3RD PARTY TESTING.
- k. CORE RESULTS SHALL BE REPORTED ON CORE ANALYSIS (FORM # 2), E-MAILED TO MATERIALS LAB & INSPECTOR NO LATER THAN ONE BUSINESS DAY FROM TESTING (ONE DAY FROM CUTTING FOR COMPANION CORED), AND MAILED OUT TO PERMITTEE.
- FIELD TECHNICIANS AND THIRD PARTY TESTING LABS SHALL MAINTAIN A LOG OF THEIR TEST RESULTS: RECOMMENDATIONS AND ACTIONS TAKEN TO CORRECT THE PROBLEMS IF ANY. THE LOG SHALL BE AVAILABLE TO DPW&T FOR REVIEW UPON DPW&T INSPECTORS
- 34) PERMITTEE SHALL SUBMIT PROPERTY CORNER CERTIFICATIONS AND UTILIZE METAL PROPERTY MARKERS PER PRINCE GEORGE'S COUNTY CODE, SECTION 24-120, PRIOR TO
- 35) WASHINGTON SUBURBAN SANITARY COMMISSION 200 FOOT SHEET NO.: 211NE05
- 36) DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION SITE CONCEPT APPROVAL NUMBER:
- 38) PRELIMINARY PLAN APPROVAL NUMBER: 39) RECORD PLAT RECORDING NUMBER: 6970
- 40) APPROVED STREET GRADE ESTABLISHMENT INFORMATION:
- 41) AT THE TIME OF PERMIT RELEASE, THE FOLLOWING MINIMUM SUBMITTAL REQUIREMENTS WHERE APPLICABLE SHALL APPLY: - WASHINGTON SUBURBAN SANITARY COMMISSION PAVING CLEARANCE CERTIFICATION; -BITUMINOUS CONCRETE CORE CERTIFICATIONS, ALL PAVEMENT COURSES; -PROPERTY MARKER CERTIFICATION:
- -DEPARTMENT OF PUBLIC WORKS ANDS TRANSPORTATION LETTER APPROVING STORM DRAIN -TREE APPROVAL AND TREE BOND POSTED IF NECESSARY; -STREET LIGHT PROOF OF PAYMENT (MUST BE ACCOMPANIED BY A MEMORANDUM FROM
- DPW&T'S TRAFFIC SAFETY DIVISION ACCEPTING THE PROOF OF PAYMENT); AND -PROOFS/STATEMENT THAT ALL FINANCIAL MATTERS HAVE BEEN SETTLED.
- 42) THE PERMITTEE IS RESPONSIBLE FOR THE DESIGN AND INSTALLATION OF ALL TRAFFIC SIGNS, TRAFFIC SIGNALS, AND ROADWAY MARKINGS FOR ROADWAY IMPROVEMENTS ON SUBDIVISION ACCESS ROADS WHICH INCLUDE ARTERIAL, COLLECTOR, INDUSTRIAL, AND ANY NECESSARY OFFSITE CONDITIONS WHICH REQUIRE ROADWAY IMPROVEMENTS. THE DESIGN AND/OR CONSTRUCTION DRAWINGS SHALL BE INCLUDED ALONG WITH THE PERMIT PLANS, AND SHALL BE REVIEWED AND APPROVED BY THE DEPARTMENT'S TRAFFIC SAFETY DIVISION PRIOR TO PERMIT ISSUANCE.
- 43) THE PERMITTEE IS RESPONSIBLE FOR THE DESIGN AND INSTALLATION OF ALL TRAFFIC MARKINGS, TRAFFIC SIGNALS, IF REQUIRED, AND PAYMENT OF FEE FOR STREET NAME SIGNS ON INTERNAL SUBDIVISION STREETS. TRAFFIC SIGNS WILL BE FURNISHED AND INSTALLED BY
- 44) ALL CONCRETE PIPE SYSTEMS 48 INCHES OR LESS SHALL BE INSPECTED WITH A VIDEO CAMERA AS PART OF THE FINAL "AS-BUILT" CONSTRUCTION REQUIREMENTS.
- 45) ALL WATER AND SEWER UTILITIES SHALL CONFORM TO WSSC STANDARD DETAILS AND
- 46) ALL STORM DRAIN UTILITIES SHALL CONFORM TO PG DPW&T STANDARD DETAILS AND SPECIFICATIONS.
- 47) ALL CONSTRUCTION IN THE PUBLIC RIGHT-OF-WAY SHALL CONFORM TO CURRENT PG DPW&T STANDARDS AND SPECIFICATIONS UNLESS OTHERWISE NOTED.

STABILIZATION NOTE

STABILIZATION PRACTICES ON ALL PROJECTS MUST BE IN COMPLIANCE WITH THE REQUIREMENTS COMAR 26.17.1.08 G REGULATIONS BY JANUARY 9, 2013, REGARDLESS OF WHEN AN EROSION AND SEDIMENT CONTROL PLAN WAS APPROVED. FOLLOWING INITIAL SOIL DISTURBANCE OR RE-DISTURBANCE PERMANENT OR TEMPORARY STABILIZATION MUST BE COPMLETED WITHIN: THREE (3) CALENDAR DAYS AS TO THE SURFACE OF ALL PERIMETER DIKES, SWALES, DITCHES, PERIMETER SLOPES, AND ALL SLOPES STEEPER THAN 3 HORIZONTAL TO 1 VERTICAL (3:1); AND SEVEN (7) CALENDAR DAYS AS TO ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE NOT UNDER ACTIVE GRADING.

DEPARTMENT PERMIT NUMBER | PARCEL AND/OR LOT AND BLOCK IDENTIFIER PARCEL 0134 27127-2019-0

ADA COMPLIANCE NOTE

THE CONTRACTOR IS RESPONSIBLE FOR INSURING THAT ALL ELEMENTS ARE CONSTRUCTED IN ACCORDANCE WITH THE DESIGN DOCUMENTS AND CONTRACT CONDITIONS INCLUDING THE 2010 ADA STANDARDS FOR ACCESSIBLE DESIGN (ADA) AND UPDATES. IF THE CONTRACTOR OBSERVES THAT PORTIONS OF THE PROJECT ARE NON-COMPLIANT WITH THE ADA. HE SHALL NOTIFY THE CONSTRUCTION MANAGER SO THAT A FIFLD ADJUSTMENT CAN BE MADE TO INSURE COMPLIANCE. GRADE TOLERANCES SHALL BE MEASURED WITH A 2 FEET DIGITAL

STANDARD TOP SOIL NOTE:

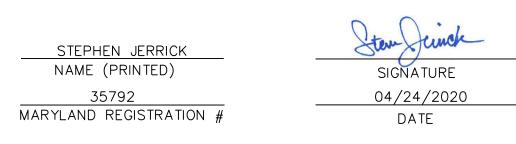
PRIOR TO VEGETATIVE STABILIZATION ALL DISTURBED AREAS MUST BE TOPSOILED PER THE MARYLAND DEPARTMENT OF THE ENVIRONMENT STANDARDS FOR TOPSOIL AND VEGETATIVE

APPLICANT/ENGINEER A. MORTON THOMAS AND ASSOCIATES 800 KING FARM DRIVE, 4TH FLOOR ROCKVILLE, MD 20850 ENGINEER: STEPHEN JERRICK, P.E. PHONE: 301-881-2545

OWNER'S INFORMATION CITY OF COLLEGE PARK DPW 9300 BLOCK OF 51ST AVE COLLEGE PARK, MARYLAND 20740 ATTN. BRENDA ALEXANDER PHONE #: (240) 487-3590

GRADING CERTIFICATION

HEREBY CERTIFY THAT THIS PLAN CONFORMS TO THE REQUIREMENTS OF SUBTITLE 32, DIVISION 2 OF THE CODE OF PRINCE GEORGE'S COUNTY WATER RESOURCES PROTECTION AND GRADING CODE; AND THAT I OR MY STAFF HAVE INSPECTED THIS SITE AND THAT DRAINAGE FLOWS FROM UPHILL PROPERTIES ONTO THIS SITE, AND FROM THIS SITE ONTO DOWNHILL PROPERTIES, HAVE BEEN ADDRESSED IN SUBSTANTIAL ACCORDANCE WITH APPLICABLE CODES. AND SIGNED, SEALED AND DATED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF MARYLAND,



CONSULTANTS CERTIFICATION

I CERTIFY THAT THIS ENVIRONMENTAL SITE DEVELOPMENT GRADING, EROSION AND SEDIMENT CONTROL PLAN REPRESENTS ALL SIGNIFICANT RESOURCES AND IS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THIS SITE, AND THAT THIS PLAN WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE PRINCE GEORGE'S SOIL CONSERVATION DISTRICT AND "STANDARDS AND SPECIFICATIONS FOR SOILS EROSION AND SEDIMENT CONTROL". I HAVE REVIEWED THIS ENVIRONMENTAL SITE DEVELOPMENT GRADING, EROSION AND SEDIMENT CONTROL PLAN WITH THE OWNER/DEVELOPER.

Stew Janes _____MD LICENSE#_35792_ PRINT NAME STEPHEN JERRICK _____DATE 04/24/2020

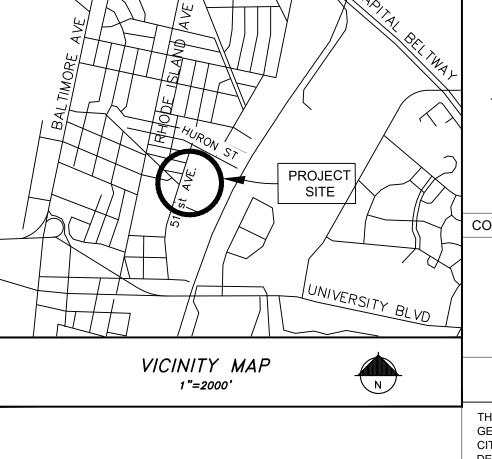
UTILITY CERTIFICATION

MARYLAND REGISTRATION #

HERE BY CERTIFY THAT THE EXISTING AND PROPOSED UNDERGROUND UTILITY INFORMATION SHOWN HERE ON HAS BEEN CORRECTLY DUPLICATED FROM UTILITY COMPANY RECORDS, FURTHER THAT THIS PROJECT HAS BEEN CAREFULLY COORDINATED WITH THE INVOLVED UTILITY COMPANIES AND ALL UNDERGROUND UTILITY INFORMATION RELATIVE TO THIS PLAN HAS BEEN SOLICITED FROM THEM.

STEPHEN JERRICK NAME (PRINTED) SIGNATURE 04/24/2020

DATE



SHEET LIST TABLE

2 VF-101 EXISTING CONDITIONS & DEMOLITION PLAN

6 CE-501 EROSION & SEDIMENT CONTROL NOTES

7 | CE-502 | EROSION & SEDIMENT CONTROL NOTES

8 CE-503 EROSION & SEDIMENT CONTROL DETAILS

9 CE-504 EROSION & SEDIMENT CONTROL DETAILS

11 CW-201 SWM ENLARGEMENT PLAN AND SECTION

19 CU-401 STORM DRAIN DRAINAGE AREA MAP

20 LS-101 LANDSCAPE MATERIALS PLAN

22 LS-502 DOG AGILITY EQUIPMENT DETAILS

NR-EL ENTIRE SITE PLAN

TREE CONSERVATION NOTES

TREE CONSERVATION DETAILS

NR-EL PROJECT AREA SITE PLAN

TREE CONSERVATION PLAN ENTIRE SITE

TREE CONSERVATION PLAN PROJECT AREA

21 LS-501 LANDSCAPE DETAILS

10 CW-101 STORMWATER MANAGEMENT PLAN

3 CE-100 EROSION & SEDIMENT CONTROL COVER SHEET

4 | CE-101 | EROSION & SEDIMENT CONTROL PLAN - INITIAL PHASE

5 | CE-102 | EROSION & SEDIMENT CONTROL PLAN - FINAL PHASE

Number

1 | GI-100 | COVER SHEET

12 CW-501 SWM DETAILS

| 13 | CW-502 | SWM DETAILS

15 CS-501 SITE DETAILS

16 CS-502 SITE DETAILS

17 CG-101 GRADING PLAN

23 | LP-101 |PLANTING PLAN

TCP-2

TCP-3

TCP-4

24 | LP-501 |PLANTING DETAILS

ADDITIONAL PERMIT SHEETS

18 CU-101 UTILITY PLAN

14 | CS-101 |SITE PLAN

CONSULTING ENGINEERS 800 KING FARM BOULEVARD, 4TH FLOOR ROCKVILLE, MD 20850 PHONE (301) 881-2545 | FAX (301) 881-0814 EMAIL: AMT1@AMTENGINEERING.COM

CITY OF COLLEGE PARK, MARYLAND

THIS PLAN HAS BEEN REVIEWED AND APPROVED FOR GENERAL CONFORMANCE WITH THE PROVISIONS OF THE CITY CODE. APPROVAL THEREOF DOES NOT RELIEVE THE DEVELOPER OF ANY OTHER REQUIRED PROVISIONS OF THE CODE OR STANDARDS.

PUBLIC WORKS DIRECTOR

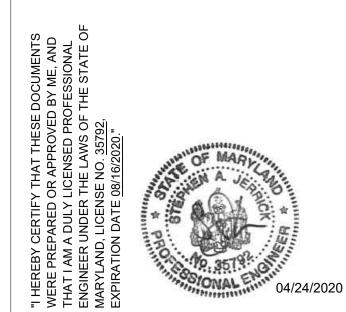
PLANNING DIRECTOR CITY ENGINEER

COMMUNITY SERVICES DIRECTOR

OWNER / DEVELOPER: CITY OF COLLEGE PARK DEPTMENT OF PUBLIC WORKS 9217 51ST AVE

COLLEGE PARK, MD 20740

HOLLYWOOD DOG PARK 9300 BLOCK 51ST AVENUE (EAST SIDE) COLLEGE PARK, MD 20740



MARK	DATE	DESCRIPTION
PROJE	CT NO:	18-0681.001
SCALE	:	N/A
DESIG	NED BY:	ABS

COVER SHEET

SAJ

DRAWN BY:

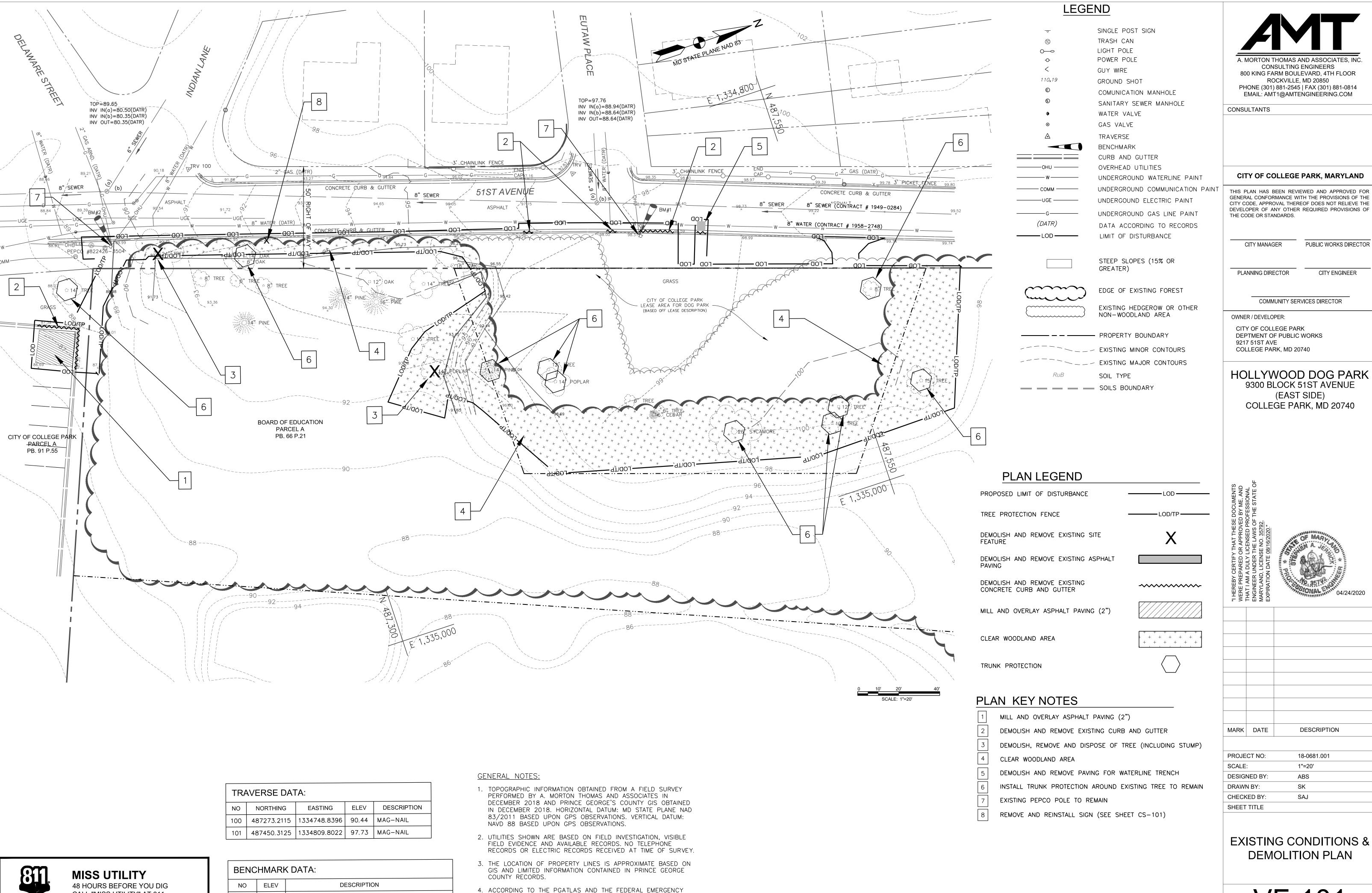
CHECKED BY:

SHEET TITLE



MISS UTILITY

48 HOURS BEFORE YOU DIG CALL "MISS UTILITY" AT 811 OR LOG ON TO www.missutility.net



MANAGEMENT ADMINISTRATION FLOODPLAIN RATE INSURANCE MAP

NOT FALL WITHIN FEMA 100-YEAR FLOODPLAIN. THE SITE IS NOT

24033-C0043-E DATED SEPTEMBER 16, 2016 THE SITE DOES

IN TIER II WATERSHIED.

CALL "MISS UTILITY" AT 811

OR LOG ON TO www.missutility.net

Know what's below. Call before you dig.

99.16 CUT NAIL IN LIGHT/POWER COMBO POLE

2 | 90.54 | CUT NAIL IN POWER POLE PEPCO #822426-3504

DESCRIPTION

18-0681.001

1"=20'

ABS

SK

SAJ

DEMOLITION PLAN

CONSULTING ENGINEERS

800 KING FARM BOULEVARD, 4TH FLOOR

ROCKVILLE, MD 20850

PHONE (301) 881-2545 | FAX (301) 881-0814

COMMUNITY SERVICES DIRECTOR

9300 BLOCK 51ST AVENUE

(EAST SIDE) COLLEGE PARK, MD 20740

PUBLIC WORKS DIRECTOR

CITY ENGINEER

EMAIL: AMT1@AMTENGINEERING.COM

CITY MANAGER

HOLLYWOOD DOG PARK

FINAL GRADING, EROSION SEDIMENT CONTROL COLLEGE PARK, MARYLAND

STANDARD EROSION CONTROL SEQUENCE NOTES

THE DEVELOPER IS RESPONSIBLE FOR THE ACQUISITION OF ALL REQUIRED EASEMENT, RIGHT AND/OR RIGHTS-OF-WAY PURSUANT TO THE DISCHARGE FROM THE EROSION AND SEDIMENT CONTROL PRACTICES, STORMWATER MANAGEMENT PRACTICES AND THE DISCHARGE OF STORMWATER ONTO OR ACROSS AND GRADING OR OTHER WORK TO BE PERFORMED ON ADJACENT

OR DOWNSTREAM PROPERTIES AFFECTED BY THIS PLAN. FOLLOWING INITIAL SOIL DISTURBANCE OR REDISTURBANCE, PERMANENT

OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN: A) THREE (3) CALENDAR DAYS AS TO THE SURFACE OF ALL PERIMETER CONTROLS, DIKES, SWALES, DITCHES, PERIMETER SLOPES, AND ALL SLOPES GREATER THAN THREE HORIZONTAL TO ONE VERTICAL (3:1) AND B) SEVEN (7) CALENDAR DAYS FOR ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE, THE IN-PLACE SEDIMENT CONTROL MEASURES WILL BE MAINTAINED ON A CONTINUING BASIS UNTIL THE SITE IS PERMANENTLY STABILIZED AND ALL PERMIT REQUIREMENTS ARE MET.

THE CONTRACTOR SHALL REQUEST THAT THE INSPECTION AUTHORITY APPROVE WORK COMPLETED IN ACCORDANCE WITH THE APPROVED EROSION AND SEDIMENT CONTROL PLAN, THE GRADING OR BUILDING PERMIT AND SHALL OBTAIN WRITTEN INSPECTION APPROVALS BY THE INSPECTOR AT THE FOLLOWING STAGES IN THE DEVELOPMENT OF THE SITE:

(1) PRIOR TO THE START OF EARTH DISTURBANCE;

(2) UPON COMPLETION OF INSTALLATION OF TREE PROTECTION DEVICES, FOLLOWED BY THE INSTALLATION OF PERIMETER EROSION AND SEDIMENT CONTROLS, PRIOR TO PROCEEDING WITH ANY OTHER EARTH DISTURBANCE OR GRADING. OTHER BUILDING OR GRADING INSPECTION APPROVALS MAY NOT BE AUTHORIZED UNTIL INITIAL APPROVAL BY THE INSPECTOR IS MADE;

(3) UPON COMPLETION OF STRIPPING, THE STOCKPILING OF TOPSOIL, THE CONSTRUCTION OF TEMPORARY SEDIMENT AND EROSION CONTROL FACILITIES, DISPOSAL OF ALL WASTE MATERIAL AND PREPARATION OF THE GROUND;

(4) UPON COMPLETION OF ROUGH GRADING, BUT PRIOR TO PLACING TOPSOIL, PERMANENT DRAINAGE OR OTHER SITE DEVELOPMENT IMPROVEMENTS AND GROUND COVERS; (5) PRIOR TO THE START OF ANOTHER PHASE OF CONSTRUCTION OR OPENING OF ANOTHER GRADING UNIT;

(6) PRIOR TO THE REMOVAL OF SEDIMENT CONTROL PRACTICES; AND (7) UPON COMPLETION OF FINAL GRADING, REFORESTING, PERMANENT DRAINAGE AND EROSION CONTROL FACILITIES INCLUDING ESTABLISHED GROUND COVERS AND PLANTING, AND ALL OTHER WORK OF THE BUILDING PERMITS.

APPROVAL SHALL BE REQUESTED UPON FINAL STABILIZATION OF ALL SITES WITH DISTURBED AREAS IN EXCESS OF TWO ACRES BEFORE REMOVAL OF CONTROLS.

ALL PERMITS UNDER AN EROSION AND SEDIMENT CONTROL PLAN MUST AND CAN ONLY BE ISSUED TO THE OWNER/DEVELOPER THAT SIGNS THE CERTIFICATION ON THE PLAN. THE OWNER/DEVELOPER THAT SIGNS THE CERTIFICATION ON AN EROSION AND SEDIMENT CONTROL PLAN IS THE RESPONSIBLE PARTY REGARDLESS OF ANY SALE OF THE PROPERTY OR WORK OF SUBCONTRACTORS, EROSION AND SEDIMENT CONTROL PLANS ARE APPROVED FOR ONE OWNER/DEVELOPER ONLY. THE OWNER/DEVELOPER CONFERS FULL RESPONSIBILITY TO EXECUTE THE WORK CALLED FOR UNDER THIS PERMIT TO THE GENERAL CONTRACTOR.

PGSCD APPROVAL OF A EROSION AND SEDIMENT CONTROL PLAN, PURSUANT TO MEETING LOCAL PERMIT REQUIREMENTS FOR GRADING, BUILDING OR STREET PERMITS, ETC., IS VALID ONLY WHEN THE WORK TO BE PERFORMED UNDER THE PERMIT IS THE SAME AS (NO MORE/NO LESS THAN) THAT CONTAINED IN THE PLAN AS APPROVED BY THE PGSCD.

ANY CHANGES OR MODIFICATIONS TO AN APPROVED EROSION AND SEDIMENT CONTROL PLAN. NOT APPROVED BY THE PGSCD, SHALL INVALIDATE THE PLAN APPROVAL OFFSITE BORROW OR SPOIL AREAS MUST HAVE AN APPROVED AND ACTIVE EROSION AND

SEDIMENT CONTROL PLAN. TEMPORARY DESIGNED SEDIMENT BASINS SHALL BE REMOVED WITHIN 36 MONTHS AFTER THE BEGINNING OF CONSTRUCTION OF THE BASIN.

ON SMALL POND APPROVALS(N/A TO THIS PROJECT):

THE OWNER OR ENGINEER WILL NOTIFY PGSCD PROMPTLY IN WRITING WHEN CONSTRUCTION IS BEGUN AND WHEN CONSTRUCTION IS COMPLETED

(2) THE PROJECT SHALL BE CONSTRUCTED UNDER THE SUPERVISION OF THE ENGINEER-IN-CHARGE. WITHIN 30 DAYS OF THE COMPLETION OF CONSTRUCTION, THE ENGINEER-IN-CHARGE THAT DESIGNED THE STRUCTURE SHALL PROVIDE PGSCD WITH AN AS-BUILT PLAN AND SHALL CERTIFY. WITH THE ENGINEER'S SEAL. THAT THE MD378 POND WAS

CONSTRUCTED AS SHOWN ON THE AS-BUILT PLANS. (3) THE APPROVAL IS VALID ONLY FOR USE BY THE APPLICANT AND MAY NOT BE TRANSFERRED TO ANOTHER UNLESS WRITTEN APPROVAL FOR SUCH TRANSFER IS OBTAINED FROM PGSCD.

DISTURBED SURFACE AREA <u>0.75 AC</u> VEGETATIVELY STABILIZED AREA <u>0.05 AC</u> VOLUME OF SPOIL MATERIAL <u>590 CY</u> VOLUME OF CUT <u>590 CY</u>

____O CY VOLUME OF BORROW MATERIAL VOLUME OF FILL <u>O CY</u>

LIST PREDOMINANT SOIL TYPES AND GENERAL DESCRIPTION PER PGSCD SOIL SURVEY: RUSSETT-CHRISTIANA-URBAN LAND COMPLEX (RuB) 0-5% SLOPES

 PERCENT IMPERVIOUS COVER PROPOSED: 19% TOTAL PROPOSED IMPERVIOUS AREA: 0.14 AC

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OR LOG ON TO www.missutility.net

CALL "MISS UTILITY" AT 811

STABILIZATION NOTE:

Know what's below.
Call before you dig.

STABILIZATION PRACTICES ON ALL PROJECTS MUST BE IN COMPLIANCE WITH THE REQUIREMENTS OF COMAR 26.17.1.08 G REGULATIONS BY JANUARY 9, 2013, REGARDLESS OF WHEN AN EROSION AND SEDIMENT CONTROL PLAN WAS APPROVED. FOLLOWING INITIAL SOIL DISTURBANCE OR RE-DISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION MUST BE COMPLETED WITHIN: THREE (3) CALENDAR DAYS AS TO THE SURFACE OF ALL PERIMETER DIKES, SWALES, DITCHES, PERIMETER SLOPES, AND ALL SLOPES STEEPER THAN 3 HORIZONTAL TO 1 VERTICAL (3:1); AND SEVEN (7) CALENDAR DAYS AS TO ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE NOT UNDER ACTIVE GRADING

> APPLICANT/ENGINEER A. MORTON THOMAS AND ASSOCIATES 800 KING FARM DRIVE, 4TH FLOOR ROCKVILLE, MD 20850 ENGINEER: STEPHEN JERRICK, P.E.

OWNER'S INFORMATION CITY OF COLLEGE PARK DEPARTMENT OF PUBLIC WORKS 9217 51ST AVENUE COLLEGE PARK, MD 20740

PHONE: 301-881-2545

(T) #: (301) 474-4194

EROSION CONTROL SEQUENCE OF CONSTRUCTION (TO BE PERFORMED BY THE GENERAL CONTRACTOR)

1. ARRANGE FOR AND ATTEND PRE-CONSTRUCTION MEETING WITH PRINCE GEORGE'S COUNTY DEPARTMENT OF PERMITTING, INSPECTIONS, AND ENFORCEMENT (PG-DPIE) INSPECTOR, ENGINEER AND OWNER'S REPRESENTATIVE(S). CONTACT PG-DPIE AT LEAST 7 DAYS PRIOR TO CONSTRUCTION ..1 DAY 1 DAY 2. THE LIMITS OF DISTURBANCE MUST BE FIELD MARKED PRIOR TO CLEARING TREES, INSTALLATION OF SEDIMENT CONTROL MEASURES, CONSTRUCTION, OR ANY OTHER LAND DISTURBING ACTIVITIES.. ...1 DAY

2 DAYS 3. OBTAIN WRITTEN APPROVAL FROM PG-DPIE INSPECTOR CERTIFYING THAT THE LIMITS OF DISTURBANCE ARE CORRECTLY MARKED PRIOR TO COMMENCING CLEARING.. 3 DAYS ..1 DAY 4. WITH INSPECTOR APPROVAL, INSTALL PERIMETER CONTROLS INCLUDING SUPER SILT FENCE, TREE PROTECTION AND STABILIZED CONSTRUCTION ENTRANCE. CLEAR AND GRUB SITE. 4 DAYS .1 DAY 5. MAINTAIN EROSION AND SEDIMENT CONTROL MEASURES IN GOOD WORKING CONDITION. .1 DAY 5 DAYS 6. WITH INSPECTOR APPROVAL, GRADE THE SITE. THE EXTENT AND DURATION OF DISTURBANCE SHOULD BE LIMITED TO THE AREAS SHOWN. ALL SPOIL MATERIAL MUST BE HAULED TO A SITE WITH 12 DAYS AN ACTIVE APPROVED SEDIMENT CONTROL PLAN... ..1 WEEK 7. AT THE COMPLETION OF GRADING, THE SITE SHALL BE STABILIZED WITHIN THREE (3) CALENDER DAYS AS TO THE SURFACE OF ALL PERIMETER SLOPED AND ALL SLOPES STEEPER THAN 3 HORIZONTAL TO 1 VERTICAL (3:1); AND SEVEN (7) CALENDER DAYS AS TO ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE NOT UNDER ACTIVE GRADING. .3 DAYS 15 DAYS 8. INSTALL HEAD WALLS HW-01, HW-02 AND RIP-RAP OUTLET PROTECTIONS. .1 WEEKS 22 DAYS 9. INSTALL 3/4" COPPER WATER PIPING, INLET DB02, 6" PVC PIPES CONNECTING TO HW-01 AS SHOWN ON SHEET CE102, AND 6" PERFORATED UNDERDRAIN WITHIN THE LIMITS OF THE DOG PARK AREA. REPLACE DB02 INLET GRATE TOP WITH A SOLID TOP AND INSTALL INLET PROTECTION AROUND INLET. BACKFILL FROM TRENCH EXCAVATION SHOULD BE PLACED ON UPGRADE SIDE OF TRENCH AND THE TRENCH SHOULD BE BACKFILLED AT THEN END OF EACH WORK DAY. .3 WEEKS 43 DAYS 10. INSTALL CONCRETE PAVING AND SIDEWALK, ASPHALT PARKING, AND CURB RAMPS. CONTRACTOR SHALL PHASE SIDEWALK INSTALL AND PROVIDE SAME DAY STABILIZATION TO LIMIT EXPOSURE. 3 WEEKS 64 DAYS 11. INSTALL WOOD FIBER SYSTEM, FENCE AND GATE. INSTALL FENCE UP TO STABILIZED CONSTRUCTION ENTRANCE UNTIL CONSTRUCTION IS COMPLETE. .3 WEEKS 85 DAYS 12. ONCE AREA IS STABILIZED, INSTALL PIPE OUTFALL CONNECTING TO HW-02 AND UNDERDRAIN WITH LIMITS OF DOG PARK AREA. BACKFILL FROM TRENCH EXCAVATION SHOULD BE PLACED ON UPGRADE SIDE OF TRENCH AND THE TRENCH SHOULD BE BACKFILLED AT THEN END OF EACH WORK DAY. 86 DAYS ..1 DAY 13. NOTIFY ENGINEER PRIOR TO CONSTRUCTION OF STORMWATER MANAGEMENT FACILITY FOR AS-BUILT ..1 DAY 87 DAYS 14. ONCE THE CONTRIBUTING AREA IS STABILIZED, WITH THE APPROVAL OF THE PG-DPIE INSPECTOR, CONSTRUCT STORM WATER MANAGEMENT FACILITY1 WEEK 94 DAYS

PROJECT NARRATIVE

THE CITY OF COLLEGE PARK PLANS TO CONSTRUCT A NEW DOG PARK ON THE EAST SIDE OF 9300 BLOCK OF 51ST AVENUE. THE PROPERTY IS ZONED RESERVED OPEN SPACE (ROS) AND IS CURRENTLY OWNED BY PRINCE GEORGE'S COUNTY BOARD OF EDUCATION. THE DOG PARK WILL BE LOCATED ON APPROXIMATELY 0.75-ACRES OF THE 18.4-ACRE TOTAL SITE AREA. THE PROJECT IS BOUNDED BY 51ST AVENUE TO THE WEST, A WOODED AREA TO THE NORTH, THE CITY OF COLLEGE PARK DEPARTMENT OF PUBLIC WORKS (DPW) COMPOSTING AREA TO THE EAST AND WOODED AREA TO THE SOUTH. THE NEW DOG PARK WILL CONSIST OF CLEARING A POSITION OF THE EXISTING WOODED AREA, INSTALLING A MULCH AREA CONTAINED BY A CONCRETE CURB AND FENCING. A NEW ADA PARKING STALL WILL BE PAINTED IN THE EXISTING PARKING SOUTH OF THE DOG PARK. A NEW SIDE WALK WILL BE EXTENDED FROM THE NEW PARKING STALL TO THE DOG PARK. THE PROPOSED PROJECT HAS BEEN DEVELOPED TO COMPLY WITH THE ENVIRONMENTAL SITE DESIGN REQUIREMENTS AS REQUIRED BY THE MARYLAND DEPARTMENT OF THE ENVIRONMENT AND PRINCE GEORGE'S COUNTY

15. OBTAIN WRITTEN APPROVAL FROM PG-DPIE INSPECTION AND REMOVE ALL SEDIMENT CONTROL

DISTURBED BY EROSION AND SDIMENT CONTROL MEASURE REMOVAL.

COMPLETE FENCING AND PAVING IN AREA OF THE SCE. IMMEDIATELY STABILIZE ANY AREAS

DEVICES ONCE 95% STABILIZATION IS ACHIEVED. REMOVE SCE WITH INSPECTOR APPROVAL, AND

DRAINAGE FROM THE PROJECT SITE REACHES THE INDIAN CREEK WHICH IS PART OF THE ANACOSTIA RIVER WATERSHED. THE ANACOSTIA AND ITS TRIBUTARIES HAVE BEEN PREVIOUSLY DESIGNATED AS USE I-P, II, III AND IV. AND IDENTIFIED AS IMPAIRED BY SEDIMENTS, FECAL BACTERIA, NUTRIENTS, TOXICS, AND IMPACTS TO BIOLOGICAL COMMUNITIES. THE SITE IS NOT LOCATED IN A TIER II WATERSHED NOR IS IT IN A CHESAPEAKE BAY CRITICAL AREA. THE PROJECT SITE IS UNDERLAIN BY SOILS OF SASSAFRAS-URBAN LAND COMPLEX (5-15% SLOPES), TYPE A SOILS. THE SOILS ARE WELL DRAINED AND WILL LEND THEMSELVES TO POTENTIAL STORMWATER MANAGEMENT PRACTICES. THE PROJECT SITE IS NOT LOCATED IN WETLANDS.

1. NATURAL RESOURCE PROTECTION, ENHANCEMENT, AND PRESERVATION: A SUSTAINABLE DESIGN APPROACH IS BEING EMPLOYED THAT PRESERVES EXISTING HEALTHY TREES, REMOVES INVASIVE FROM PLANTS FROM THE PROPOSED PARK AREA, AND INCLUDES AND ADDITION OF A NEW MICRO-BIORETENTION STORMWATER MANAGER FACILITY. ONLY THE VEGETATION NECESSARY WILL BE REMOVED AS PART OF THE PROJECT.

2. MAINTENANCE OF NATURAL FLOW PATTERNS:

UNDER CURRENT CONDITIONS, OVERALL THE SITE DRAINS WEST TO EAST. UNDER PROPOSED CONDITIONS, THE OVERALL FLOW PATTERNS WILL BE MAINTAINED. THE PROPOSED MICRO-BIORETENTION WILL COLLECT FLOW AND OUTLET AT PROPOSED HEADWALL HW-1 AND DISCHARGED INTO AN EXISTING GRASS CHANNEL ON SITE. THIS STORM DRAIN PIPING IS PUBLICLY MAINTAINED MICROBIORETENTION FACILITIES MB-1 WILL TREAT A PORTION OF THE EAST SIDE OF 51ST AVENUE.

THE MICROBIORETENTION FACILITY WILL SATISFY OUR STORMWATER ESD REQUIREMENTS.

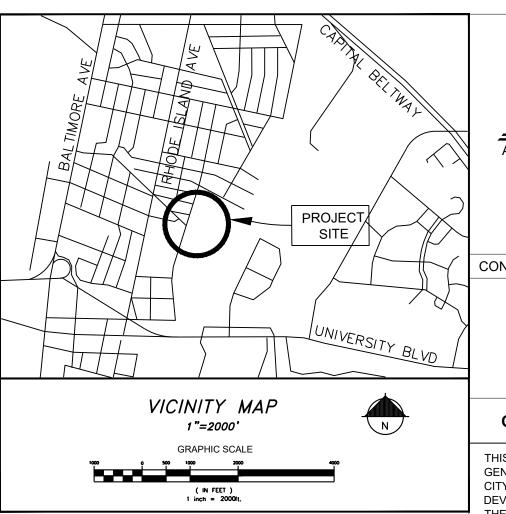
3. REDUCTION OF IMPERVIOUS AREA THROUGH BETTER SITE DESIGN, ALTERNATIVE SURFACES. AND NON-STRUCTURAL PRACTICES:

NEW IMPERVIOUS AREA HAS BEEN KEPT TO A MINIMUM. MICROBIORETENTION FACILITIES ARE BEING UTILIZED TO SATISFY STORMWATER REQUIREMENTS.

4. INTEGRATION OF EROSION AND SEDIMENT CONTROLS INTO THE STORMWATER STRATEGY: THE EROSION CONTROL DESIGN FOR THE PROJECT CONSISTS OF THE USE OF TREE PROTECTION, THERE WILL ALSO BE ONE STABILIZED CONSTRUCTION ENTRANCE LOCATED ON THE NORTH CORNER OF THE PROJECT LIMITS.

5. IMPLEMENTATION OF ESD PLANNING TECHNIQUES AND PRACTICES TO THE MEP: A MICROBIORETENTION FACILITY WAS THE IDEAL NONSTRUCTURAL ESD PRACTICES TO USE, IN MINIMIZING DISTURBANCE TO THE EXISTING GREEN SPACE.

6. EVALUATION OF STABILIZATION REQUIREMENTS: SITE GRADING WILL BE AT 3:1 OR FLATTER TO MEET B-3 PG SCD STANDARDS FOR LAND GRADING. SHEET FLOW FROM THESE SLOPES WILL BE ADDRESSED BY SUPER SILT FENCE.



CONSULTING ENGINEERS 800 KING FARM BOULEVARD, 4TH FLOOR ROCKVILLE, MD 20850 PHONE (301) 881-2545 | FAX (301) 881-0814 EMAIL: AMT1@AMTENGINEERING.COM **CONSULTANTS**

CITY OF COLLEGE PARK, MARYLAND

THIS PLAN HAS BEEN REVIEWED AND APPROVED FOR GENERAL CONFORMANCE WITH THE PROVISIONS OF THE CITY CODE. APPROVAL THEREOF DOES NOT RELIEVE THE DEVELOPER OF ANY OTHER REQUIRED PROVISIONS OF THE CODE OR STANDARDS.

PUBLIC WORKS DIRECTOR

PLANNING DIRECTOR CITY ENGINEER

COMMUNITY SERVICES DIRECTOR

OWNER / DEVELOPER:

CITY OF COLLEGE PARK DEPTMENT OF PUBLIC WORKS 9217 51ST AVE COLLEGE PARK, MD 20740

HOLLYWOOD DOG PARK 9300 BLOCK 51ST AVENUE (EAST SIDE) COLLEGE PARK, MD 20740

GRADING CERTIFICATION

GRADING, EROSION AND SEDIMENT CONTROL NOTES

GRADING, EROSION AND SEDIMENT CONTROL NOTES

STORMWATER MANAGEMENT PLAN

STORMWATER MANAGEMENT DETAILS

GRADING, EROSION AND SEDIMENT CONTROL DETAILS

GRADING, EROSION AND SEDIMENT CONTROL DETAILS

GRADING, EROSION AND SEDIMENT CONTROL CERTIFICATIONS AND NOTE

GRADING, EROSION AND SEDIMENT CONTROL PLAN - INITIAL PHASE

GRADING, EROSION AND SEDIMENT CONTROL PLAN - FINAL PHASE

STORM WATER MANAGEMENT - ENLARGEMENT PLANS & SECTION

PG SCD SHEET INDEX

SHEET NO.

SHEET

TITLE

I HEREBY CERTIFY THAT THIS PLAN CONFORMS TO THE REQUIREMENTS OF SUBTITLE 32, DIVISION 2 OF THE CODE OF PRINCE GEORGE'S COUNTY WATER RESOURCES PROTECTION AND GRADING CODE; AND THAT I OR MY STAFF HAVE INSPECTED THIS SITE AND THAT DRAINAGE FLOWS FROM UPHILL PROPERTIES ONTO THIS SITE, AND FROM THIS SITE ONTO DOWNHILL PROPERTIES, HAVE BEEN ADDRESSED IN SUBSTANTIAL ACCORDANCE WITH APPLICABLE CODES. AND SIGNED, SEALED AND DATED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF MARYLAND

STEPHEN JERRICK NAME (PRINTED) MARYLAND REGISTRATION #

SIGNATURE DATE

CONSULTANTS CERTIFICATION

..1 DAY 95 DAYS

I CERTIFY THAT THIS PLAN OF EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICABLE AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE, AND THAT THIS PLAN WAS DESIGNED AND PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE PRINCE GEORGE'S SOIL CONSERVATION DISTRICT AND "STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL". I HAVE REVIEWED THIS EROSION AND SEDIMENT CONTROL PLAN WITH THE OWNER/DEVELOPER.

_____MD LICENSE#_<u>35792</u>_ PRINT NAME STEPHEN JERRICK _____ DATE 04/24/2020

UTILITY CERTIFICATION

HERE BY CERTIFY THAT THE EXISTING AND PROPOSED UNDERGROUND UTILITY INFORMATION SHOWN HERE ON HAS BEEN CORRECTLY DUPLICATED FROM UTILITY COMPANY RECORDS, FURTHER THAT THIS PROJECT HAS BEEN CAREFULLY COORDINATED WITH THE INVOLVED UTILITY COMPANIES AND ALL UNDERGROUND UTILITY INFORMATION RELATIVE TO THIS PLAN HAS BEEN SOLICITED FROM THEM.

FSC# 217-19

DISTRICT SIGNATURE

SSC# 217-19

PRELIMINARY

POND (PP#)

STEPHEN JERRICK NAME (PRINTED)

MARYLAND REGISTRATION #

Stew Scinck
SIGNATURE
04/24/2020
DATE

PRINCE GEORGE'S SOIL CONSERVATION DISTRICT

EXPIRATION DATE

APPROVAL DATE

FINAL APPROVAL
GRADING, EROSION AND SEDIMENT CONTROL

MARK	DATE	DESCRIPTION

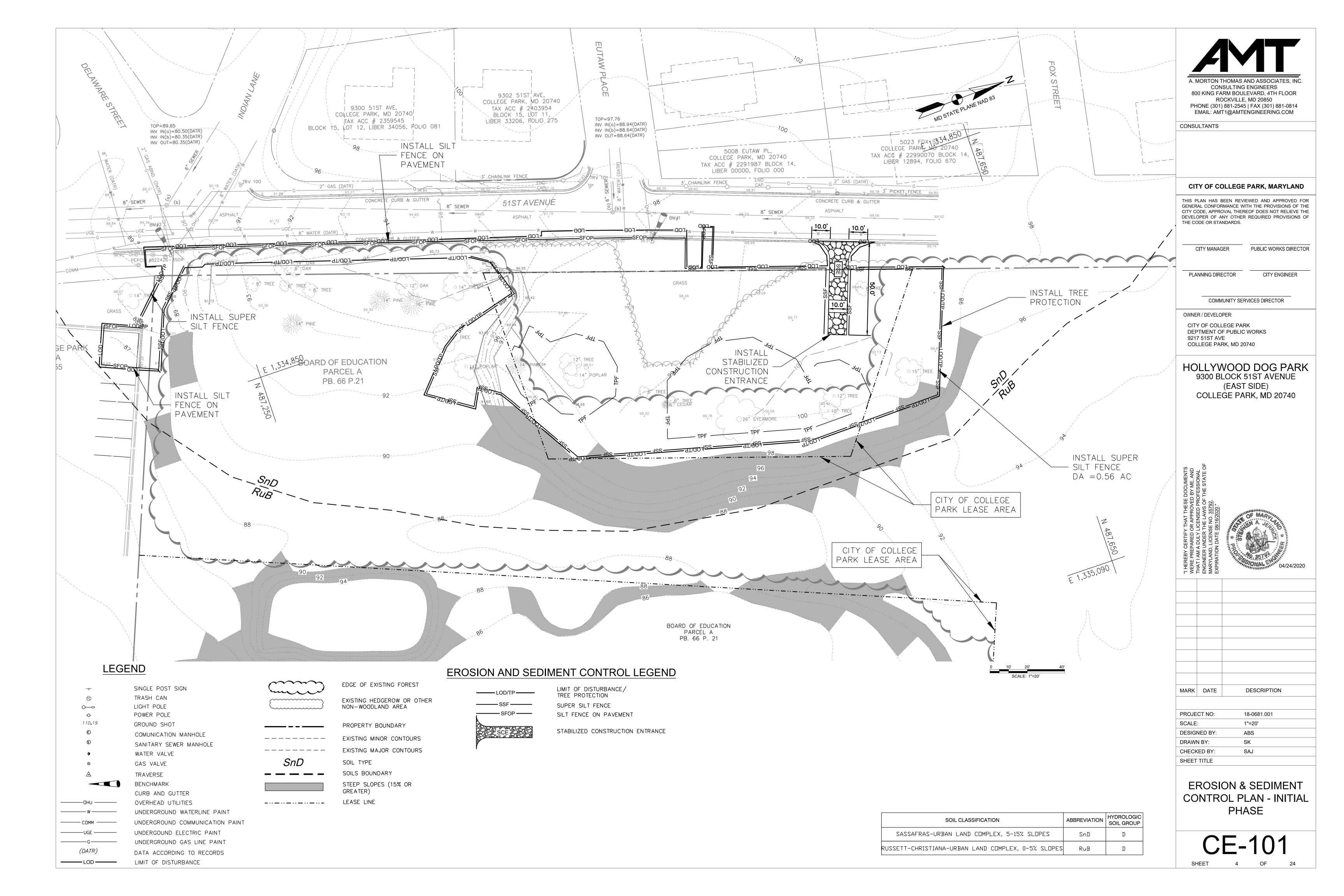
PROJECT NO:	18-0681.001
SCALE:	N/A
DESIGNED BY:	ABS
DRAWN BY:	SK
CHECKED BY:	SAJ
SHEET TITLE	

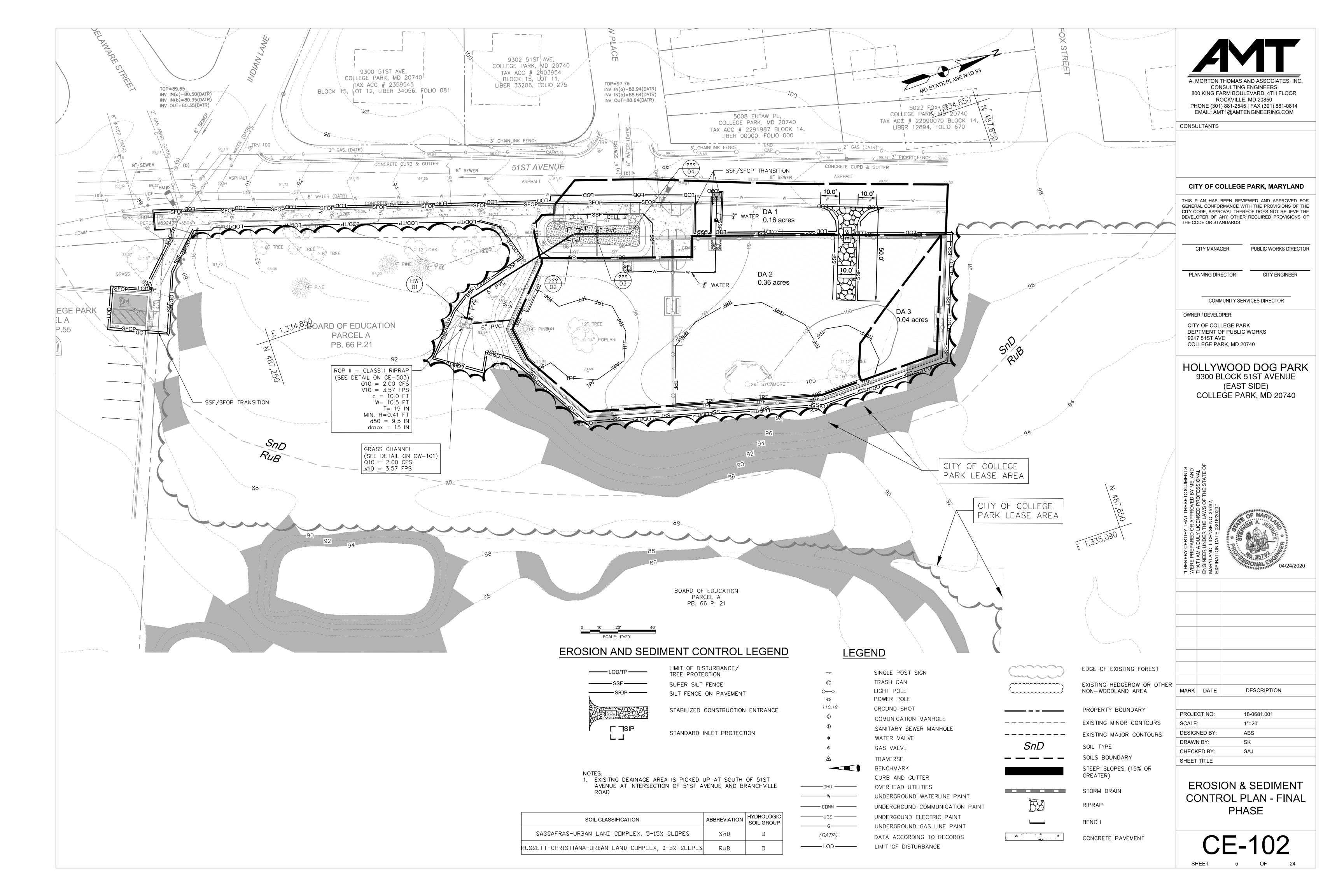
EROSION & SEDIMENT CONTROL COVER SHEET

OWNER'S/DEVELOPER'S CERTIFICATION "I/WE HEREBY CERTIFY THAT I/WE HAVE REVIEWED THIS EROSION AND SEDIMENT CONTROL PLAN AND THAT ANY CLEARING, GRADING, DRAINAGE, CONSTRUCTION

AND/OR DEVELOPMENT WILL BE DONE PURSUANT TO THIS APPROVED PLAN, INCLUDING INSPECTING AND MAINTAINING CONTROLS AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF TRAINING AT A MARYLAND DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF EROSION AND SEDIMENT BEFORE BEGINNING THE PROJECT. PRINCE GEORGE'S SOIL CONSERVATION DISTRICT AND THE ENFORCEMENT AUTHORITY SHALL HAVE THE RIGHT OF ENTRY FOR PERIODIC ON-SITE EVALUATIONS."

SIGNATURE Thomas T. Holdson





B-3 STANDARDS AND SPECIFICATIONS

FOR

LAND GRADING

Definition

Reshaping the existing land surface to provide suitable topography for building facilities and other site improvements.

Purpose

To provide erosion control and vegetative establishment for extreme changes in grade.

Conditions Where Practice Applies

Earth disturbances or extreme grade modifications on steep or long slopes.

Design Criteria

The grading plan should be based on the incorporation of building designs and street layouts that fit and utilize existing topography and desirable natural surroundings to avoid extreme grade modifications. Information submitted must provide sufficient topographic surveys and soil investigations to determine limitations that must be imposed on the grading operation related to slope stability, adjacent properties, drainage patterns, measures for water removal, and vegetative treatment, etc.

Many jurisdictions have regulations and design procedures already established for land grading that must be followed. The plan must show existing and proposed contours for the area(s) to be graded including practices for erosion control, slope stabilization, and safe conveyance of runoff (e.g., waterways, lined channels, reverse benches, grade stabilization structures). The grading/construction plans are to include the phasing of these practices and consideration of the following:

- 1. Provisions to safely convey surface runoff to storm drains, protected outlets or stable water courses to ensure that surface runoff will not damage slopes or other graded areas.
- 2. Cut and fill slopes, stabilized with grasses, no steeper than 2:1. (Where the slope is to be mowed, the slope should be no steeper than 3:1, but 4:1 is preferred because of safety factors related to mowing steep slopes.) Slopes steeper than 2:1 require special design and stabilization considerations to be shown on the plans.
- 3. Benching per Detail B-3-1 whenever the vertical interval (height) of any 2:1 slope exceeds 20 feet; for 3:1 slopes, when it exceeds 30 feet; and for 4:1 slopes, when it exceeds 40 feet. Locate benches to divide the slope face as equally as possible and to convey the water to a stable outlet. Soils, seeps, rock outcrops, etc. are to be taken into consideration when designing benches.
- Provide benches with a minimum width of six feet for ease of maintenance.
- b. Design benches with a reverse slope of 6:1 or flatter to the toe of the upper slope and with a minimum of one foot in depth. Grade the longitudinal slope of the bench between 2 percent and 3 percent, unless accompanied by appropriate design and computations.

B.5

- c. The maximum allowable flow length within a bench is 800 feet unless accompanied by appropriate design and computations.
- 4. Diversion of surface water from the face of all cut and fill slopes using earth dikes or swales. Convey surface water down slope using a designed structure, and:
- a. Protect the face of all graded slopes from surface runoff until they are stabilized.
- b. Do not subject the slope's face to any concentrated flow of surface water such as from natural drainage ways, graded swales, downspouts, etc.
- c. Protect the face of the slope by special erosion control materials to include, but not be limited to, approved vegetative stabilization practices, riprap or other approved stabilization methods.
- 5. Serrated slope as shown in Detail B-3-2. The steepest allowable slope for ripable rock is 1.5:1. For non rock surfaces, the slopes are to be 2:1 or flatter. These steps will weather and act to hold moisture, lime, fertilizer and seed thus producing a much quicker and longer lived vegetative cover and better slope stabilization.
- 6. Subsurface drainage provisions. Provide subsurface drainage where necessary to intercept seepage that would otherwise adversely affect slope stability or create excessively wet site conditions.
- 7. Proximity to adjacent property. Slopes must not be created close to property lines without adequate protection against sedimentation, erosion, slippage, settlement, subsidence, or other related damages.
- 8. Quality of fill material. Fill material must be free of brush, rubbish, logs, stumps, building debris, and other objectionable material. Do not place frozen materials in the fill nor place the fill material on a frozen foundation.
- 9. Stabilization. Stabilize all disturbed areas structurally or vegetatively in compliance with Section B-4 Standards and Specifications for Stabilization Practices.

The line, grade, and cross section of benching and serrated slopes must be maintained. Benches and serrated slopes must continuously meet the requirements for Adequate Vegetative Establishment in accordance with Section B-4 Vegetative Stabilization.

B.6

B-4 STANDARDS AND SPECIFICATIONS

VEGETATIVE STABILIZATION

Definition

Using vegetation as cover to protect exposed soil from erosion.

Purpose

To promote the establishment of vegetation on exposed soil.

Conditions Where Practice Applies

On all disturbed areas not stabilized by other methods. This specification is divided into sections on incremental stabilization; soil preparation, soil amendments and topsoiling; seeding and mulching; temporary stabilization; and permanent stabilization.

Effects on Water Quality and Quantity

Stabilization practices are used to promote the establishment of vegetation on exposed soil. When soil is stabilized with vegetation, the soil is less likely to erode and more likely to allow infiltration of rainfall, thereby reducing sediment loads and runoff to downstream areas.

Planting vegetation in disturbed areas will have an effect on the water budget, especially on volumes and rates of runoff, infiltration, evaporation, transpiration, percolation, and groundwater recharge. Over time, vegetation will increase organic matter content and improve the water holding capacity of the soil and subsequent plant growth.

Vegetation will help reduce the movement of sediment, nutrients, and other chemicals carried by runoff to receiving waters. Plants will also help protect groundwater supplies by assimilating those substances present within the root zone.

Sediment control practices must remain in place during grading, seedbed preparation, seeding, mulching, and vegetative establishment.

Adequate Vegetative Establishment

Inspect seeded areas for vegetative establishment and make necessary repairs, replacements, and reseedings within the

- 1. Adequate vegetative stabilization requires 95 percent groundcover.
- 2. If an area has less than 40 percent groundcover, restabilize following the original recommendations for lime, fertilizer, seedbed preparation, and seeding.
- 3. If an area has between 40 and 94 percent groundcover, over-seed and fertilize using half of the rates originally specified.
- 4. Maintenance fertilizer rates for permanent seeding are shown in Table B.6.

B-4-1 STANDARDS AND SPECIFICATIONS

INCREMENTAL STABILIZATION

Definition

Establishment of vegetative cover on cut and fill slopes.

Purpose

To provide timely vegetative cover on cut and fill slopes as work progresses. Conditions Where Practice Applies

Any cut or fill slope greater than 15 feet in height. This practice also applies to stockpiles.

Criteria

- A. Incremental Stabilization Cut Slopes
 - 1. Excavate and stabilize cut slopes in increments not to exceed 15 feet in height. Prepare seedbed and apply seed and mulch on all cut slopes as the work progresses.
 - 2. Construction sequence example (Refer to Figure B.1):
 - a. Construct and stabilize all temporary swales or dikes that will be used to convey runoff around

 - b. Perform Phase 1 excavation, prepare seedbed, and stabilize. c. Perform Phase 2 excavation, prepare seedbed, and stabilize. Overseed Phase 1 areas as
 - d. Perform final phase excavation, prepare seedbed, and stabilize. Overseed previously seeded

Note: Once excavation has begun the operation should be continuous from grubbing through the completion of grading and placement of topsoil (if required) and permanent seed and mulch. Any interruptions in the operation or completing the operation out of the seeding season will necessitate the application of temporary stabilization.

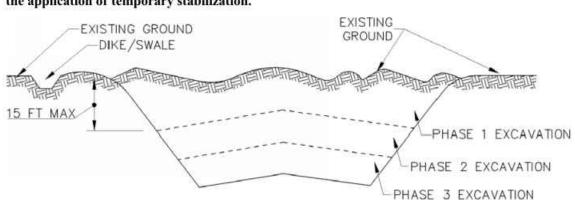


Figure B.1: Incremental Stabilization - Cut

Incremental Stabilization - Fill Slopes

- 1. Construct and stabilize fill slopes in increments not to exceed 15 feet in height. Prepare seedbed and apply seed and mulch on all slopes as the work progresses.
- 2. Stabilize slopes immediately when the vertical height of a lift reaches 15 feet, or when the grading operation ceases as prescribed in the plans.
- 3. At the end of each day, install temporary water conveyance practice(s), as necessary, to intercept surface runoff and convey it down the slope in a non-erosive manner.
- 4. Construction sequence example (Refer to Figure B.2):
- a. Construct and stabilize all temporary swales or dikes that will be used to divert runoff around the fill. Construct silt fence on low side of fill unless other methods shown on the plans address
- b. At the end of each day, install temporary water conveyance practice(s), as necessary, to intercept surface runoff and convey it down the slope in a non-erosive manner.
- Place Phase 1 fill, prepare seedbed, and stabilize.
- Place Phase 2 fill, prepare seedbed, and stabilize.
- e. Place final phase fill, prepare seedbed, and stabilize. Overseed previously seeded areas as necessary.

Note: Once the placement of fill has begun the operation should be continuous from grubbing through the completion of grading and placement of topsoil (if required) and permanent seed and mulch. Any interruptions in the operation or completing the operation out of the seeding season will necessitate the application of temporary stabilization.

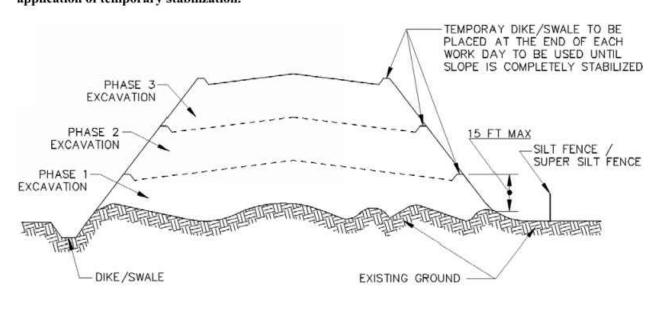


Figure B.2: Incremental Stabilization - Fill

B.11

B-4-3 STANDARDS AND SPECIFICATIONS

SEEDING AND MULCHING

<u>Definition</u>

The application of seed and mulch to establish vegetative cover.

Purpose

To protect disturbed soils from erosion during and at the end of construction.

Conditions Where Practice Applies

To the surface of all perimeter controls, slopes, and any disturbed area not under active grading.

A. Seeding

- Specifications
- a. All seed must meet the requirements of the Maryland State Seed Law. All seed must be subject to re-testing by a recognized seed laboratory. All seed used must have been tested within the 6 months immediately preceding the date of sowing such material on any project. Refer to Table B.4 regarding the quality of seed. Seed tags must be available upon request to the inspector to verify type of seed and seeding rate.
- b. Mulch alone may be applied between the fall and spring seeding dates only if the ground is frozen. The appropriate seeding mixture must be applied when the ground thaws.
- c. Inoculants: The inoculant for treating legume seed in the seed mixtures must be a pure culture of nitrogen fixing bacteria prepared specifically for the species. Inoculants must not be used later than the date indicated on the container. Add fresh inoculants as directed on the package. Use four times the recommended rate when hydroseeding. Note: It is very important to keep inoculant as cool as possible until used. Temperatures above 75 to 80 degrees Fahrenheit can weaken bacteria and make the inoculant less effective.
- d. Sod or seed must not be placed on soil which has been treated with soil sterilants or chemicals used for weed control until sufficient time has elapsed (14 days min.) to permit dissipation of phyto-toxic materials.

Application

- a. Dry Seeding: This includes use of conventional drop or broadcast spreaders.
- i. Incorporate seed into the subsoil at the rates prescribed on Temporary Seeding Table B.1, Permanent Seeding Table B.3, or site-specific seeding summaries.
- ii. Apply seed in two directions, perpendicular to each other. Apply half the seeding rate in each direction. Roll the seeded area with a weighted roller to provide good seed to soil contact.

b. Drill or Cultipacker Seeding: Mechanized seeders that apply and cover seed with soil.

- i. Cultipacking seeders are required to bury the seed in such a fashion as to provide at least 1/4 inch of soil covering. Seedbed must be firm after planting.
- ii. Apply seed in two directions, perpendicular to each other. Apply half the seeding rate in

c. Hydroseeding: Apply seed uniformly with hydroseeder (slurry includes seed and fertilizer).

- i. If fertilizer is being applied at the time of seeding, the application rates should not exceed the following: nitrogen, 100 pounds per acre total of soluble nitrogen; P₂O₅ (phosphorous), 200 pounds per acre; K₂O (potassium), 200 pounds per acre.
- ii. Lime: Use only ground agricultural limestone (up to 3 tons per acre may be applied by hydroseeding). Normally, not more than 2 tons are applied by hydroseeding at any one time. Do not use burnt or hydrated lime when hydroseeding.
- iii. Mix seed and fertilizer on site and seed immediately and without interruption.
- iv. When hydroseeding do not incorporate seed into the soil.

Mulching

1. Mulch Materials (in order of preference)

- a. Straw consisting of thoroughly threshed wheat, rye, oat, or barley and reasonably bright in color. Straw is to be free of noxious weed seeds as specified in the Maryland Seed Law and not musty, moldy, caked, decayed, or excessively dusty. Note: Use only sterile straw mulch in areas where one species of grass is desired.
- b. Wood Cellulose Fiber Mulch (WCFM) consisting of specially prepared wood cellulose processed into a uniform fibrous physical state.
- i. WCFM is to be dyed green or contain a green dye in the package that will provide an appropriate color to facilitate visual inspection of the uniformly spread slurry.
- ii. WCFM, including dye, must contain no germination or growth inhibiting factors.
- iii. WCFM materials are to be manufactured and processed in such a manner that the wood cellulose fiber mulch will remain in uniform suspension in water under agitation and will blend with seed, fertilizer and other additives to form a homogeneous slurry. The mulch material must form a blotter-like ground cover, on application, having moisture absorption and percolation properties and must cover and hold grass seed in contact with the soil without inhibiting the growth of the grass seedlings.
- iv. WCFM material must not contain elements or compounds at concentration levels that will
- v. WCFM must conform to the following physical requirements: fiber length of approximately 10 millimeters, diameter approximately 1 millimeter, pH range of 4.0 to 8.5, ash content of 1.6 percent maximum and water holding capacity of 90 percent minimum.

B.16

Application

- a. Apply mulch to all seeded areas immediately after seeding.
- b. When straw mulch is used, spread it over all seeded areas at the rate of 2 tons per acre to a uniform loose depth of 1 to 2 inches. Apply mulch to achieve a uniform distribution and depth so that the soil surface is not exposed. When using a mulch anchoring tool, increase the application rate to 2.5 tons per acre.
- c. Wood cellulose fiber used as mulch must be applied at a net dry weight of 1500 pounds per acre. Mix the wood cellulose fiber with water to attain a mixture with a maximum of 50 pounds of wood cellulose fiber per 100 gallons of water.

Anchoring

- a. Perform mulch anchoring immediately following application of mulch to minimize loss by wind or water. This may be done by one of the following methods (listed by preference), depending upon the size of the area and erosion hazard:
- i. A mulch anchoring tool is a tractor drawn implement designed to punch and anchor mulch into the soil surface a minimum of 2 inches. This practice is most effective on large areas, but is limited to flatter slopes where equipment can operate safely. If used on sloping land, this practice should follow the contour.
- ii. Wood cellulose fiber may be used for anchoring straw. Apply the fiber binder at a net dry weight of 750 pounds per acre. Mix the wood cellulose fiber with water at a maximum of 50 pounds of wood cellulose fiber per 100 gallons of water.
- iii. Synthetic binders such as Acrylic DLR (Agro-Tack), DCA-70, Petroset, Terra Tax II, Terra Tack AR or other approved equal may be used. Follow application rates as specified by the manufacturer. Application of liquid binders needs to be heavier at the edges where wind catches mulch, such as in valleys and on crests of banks. Use of asphalt binders is strictly
- iv. Lightweight plastic netting may be stapled over the mulch according to manufacturer recommendations. Netting is usually available in rolls 4 to 15 feet wide and 300 to 3,000

B.17



EMAIL: AMT1@AMTENGINEERING.COM CONSULTANTS

CITY OF COLLEGE PARK, MARYLAND

THIS PLAN HAS BEEN REVIEWED AND APPROVED FOR GENERAL CONFORMANCE WITH THE PROVISIONS OF THE CITY CODE, APPROVAL THEREOF DOES NOT RELIEVE THE DEVELOPER OF ANY OTHER REQUIRED PROVISIONS OF THE CODE OR STANDARDS.

CITY MANAGER	PUBLIC WORKS DIRECTO

CITY ENGINEER PLANNING DIRECTOR

COMMUNITY SERVICES DIRECTOR

OWNER / DEVELOPER:

CITY OF COLLEGE PARK DEPTMENT OF PUBLIC WORKS 9217 51ST AVE COLLEGE PARK, MD 20740

HOLLYWOOD DOG PARK 9300 BLOCK 51ST AVENUE (EAST SIDE) COLLEGE PARK, MD 20740

MARK DATE **DESCRIPTION** PROJECT NO: 18-0681.001 SCALE: N/A

EROSION & SEDIMENT CONTROL NOTES

ABS

SK

SAJ

DESIGNED BY

CHECKED BY:

SHEET TITLE

DRAWN BY:

B.15

B.10

B-4-2 STANDARDS AND SPECIFICATIONS

SOIL PREPARATION, TOPSOILING, AND SOIL AMENDMENTS

Definition

The process of preparing the soils to sustain adequate vegetative stabilization.

To provide a suitable soil medium for vegetative growth.

Conditions Where Practice Applies

Where vegetative stabilization is to be established.

Criteria

Soil Preparation

- Temporary Stabilization
 - a. Seedbed preparation consists of loosening soil to a depth of 3 to 5 inches by means of suitable agricultural or construction equipment, such as disc harrows or chisel plows or rippers mounted on construction equipment. After the soil is loosened, it must not be rolled or dragged smooth but left in the roughened condition. Slopes 3:1 or flatter are to be tracked with ridges running parallel to the contour of the slope.
 - b. Apply fertilizer and lime as prescribed on the plans.
 - c. Incorporate lime and fertilizer into the top 3 to 5 inches of soil by disking or other suitable

2. Permanent Stabilization

- a. A soil test is required for any earth disturbance of 5 acres or more. The minimum soil conditions required for permanent vegetative establishment are:
- i. Soil pH between 6.0 and 7.0.
- ii. Soluble salts less than 500 parts per million (ppm).
- iii. Soil contains less than 40 percent clay but enough fine grained material (greater than 30 percent silt plus clay) to provide the capacity to hold a moderate amount of moisture. An exception: if lovegrass will be planted, then a sandy soil (less than 30 percent silt plus clay) would be acceptable.
- iv. Soil contains 1.5 percent minimum organic matter by weight.
- v. Soil contains sufficient pore space to permit adequate root penetration.
- b. Application of amendments or topsoil is required if on-site soils do not meet the above
- c. Graded areas must be maintained in a true and even grade as specified on the approved plan, then scarified or otherwise loosened to a depth of 3 to 5 inches.

B.12

- d. Apply soil amendments as specified on the approved plan or as indicated by the results of a soil
- e. Mix soil amendments into the top 3 to 5 inches of soil by disking or other suitable means. Rake lawn areas to smooth the surface, remove large objects like stones and branches, and ready the area for seed application. Loosen surface soil by dragging with a heavy chain or other equipment to roughen the surface where site conditions will not permit normal seedbed preparation. Track slopes 3:1 or flatter with tracked equipment leaving the soil in an irregular condition with ridges running parallel to the contour of the slope. Leave the top 1 to 3 inches of soil loose and friable. Seedbed loosening may be unnecessary on newly disturbed areas.

B. Topsoiling

- 1. Topsoil is placed over prepared subsoil prior to establishment of permanent vegetation. The purpose is to provide a suitable soil medium for vegetative growth. Soils of concern have low moisture content, low nutrient levels, low pH, materials toxic to plants, and/or unacceptable soil gradation.
- 2. Topsoil salvaged from an existing site may be used provided it meets the standards as set forth in these specifications. Typically, the depth of topsoil to be salvaged for a given soil type can be found in the representative soil profile section in the Soil Survey published by USDA-NRCS.
- 3. Topsoiling is limited to areas having 2:1 or flatter slopes where:
- The texture of the exposed subsoil/parent material is not adequate to produce vegetative growth.
- b. The soil material is so shallow that the rooting zone is not deep enough to support plants or furnish continuing supplies of moisture and plant nutrients.
- The original soil to be vegetated contains material toxic to plant growth.
- d. The soil is so acidic that treatment with limestone is not feasible
- 4. Areas having slopes steeper than 2:1 require special consideration and design.
- 5. Topsoil Specifications: Soil to be used as topsoil must meet the following criteria:
- a. Topsoil must be a loam, sandy loam, clay loam, silt loam, sandy clay loam, or loamy sand. Other soils may be used if recommended by an agronomist or soil scientist and approved by the appropriate approval authority. Topsoil must not be a mixture of contrasting textured subsoils and must contain less than 5 percent by volume of cinders, stones, slag, coarse fragments, gravel, sticks, roots, trash, or other materials larger than 1½ inches in diameter.
- b. Topsoil must be free of noxious plants or plant parts such as Bermuda grass, quack grass, Johnson grass, nut sedge, poison ivy, thistle, or others as specified.
- c. Topsoil substitutes or amendments, as recommended by a qualified agronomist or soil scientist and approved by the appropriate approval authority, may be used in lieu of natural topsoil.

Topsoil Application

Erosion and sediment control practices must be maintained when applying topsoil.

B.13

- b. Uniformly distribute topsoil in a 5 to 8 inch layer and lightly compact to a minimum thickness of 4 inches. Spreading is to be performed in such a manner that sodding or seeding can proceed with a minimum of additional soil preparation and tillage. Any irregularities in the surface resulting from topsoiling or other operations must be corrected in order to prevent the formation of depressions or water pockets.
- c. Topsoil must not be placed if the topsoil or subsoil is in a frozen or muddy condition, when the subsoil is excessively wet or in a condition that may otherwise be detrimental to proper grading

and seedbed preparation.

C. Soil Amendments (Fertilizer and Lime Specifications)

- 1. Soil tests must be performed to determine the exact ratios and application rates for both lime and fertilizer on sites having disturbed areas of 5 acres or more. Soil analysis may be performed by a recognized private or commercial laboratory. Soil samples taken for engineering purposes may also be used for chemical analyses.
- 2. Fertilizers must be uniform in composition, free flowing and suitable for accurate application by appropriate equipment. Manure may be substituted for fertilizer with prior approval from the appropriate approval authority. Fertilizers must all be delivered to the site fully labeled according to the applicable laws and must bear the name, trade name or trademark and warranty of the producer.
- 3. Lime materials must be ground limestone (hydrated or burnt lime may be substituted except when hydroseeding) which contains at least 50 percent total oxides (calcium oxide plus magnesium oxide). Limestone must be ground to such fineness that at least 50 percent will pass through a #100 mesh sieve and 98 to 100 percent will pass through a #20 mesh sieve.
- 4. Lime and fertilizer are to be evenly distributed and incorporated into the top 3 to 5 inches of soil by disking or other suitable means.
- 5. Where the subsoil is either highly acidic or composed of heavy clays, spread ground limestone at the rate of 4 to 8 tons/acre (200-400 pounds per 1,000 square feet) prior to the placement of topsoil.

B.14

B-4-4 STANDARDS AND SPECIFICATIONS

FOR

TEMPORARY STABILIZATION

Definition

To stabilize disturbed soils with vegetation for up to 6 months.

To use fast growing vegetation that provides cover on disturbed soils.

Conditions Where Practice Applies

Exposed soils where ground cover is needed for a period of 6 months or less. For longer duration of time, permanent stabilization practices are required.

- 1. Select one or more of the species or seed mixtures listed in Table B.1 for the appropriate Plant Hardiness Zone (from Figure B.3), and enter them in the Temporary Seeding Summary below along with application rates, seeding dates and seeding depths. If this Summary is not put on the plan and completed, then Table B.1 plus fertilizer and lime rates must be put on the plan.
- 2. For sites having soil tests performed, use and show the recommended rates by the testing agency. Soil tests are not required for Temporary Seeding.
- 3. When stabilization is required outside of a seeding season, apply seed and mulch or straw mulch alone as prescribed in Section B-4-3.A.1.b and maintain until the next seeding season.

TARLE R 1: TEMPORARY SEEDING FOR SITE STARILIZATION

TABLE B.1: It	MPURART	SEEDING FOR	SITE STABILIZ	ATION	
DI ANT CRECIES	SEE	DING RATE	SEEDING DEPTH	RECOMMENDED SEEDING DATES	
PLANT SPECIES	LB/AC	LB/1000 SF	(INCHES)	HARDINESS ZONE <u>7A</u>	
COOL-SEASON GRASSES					
ANNUAL RYEGRASS (LOLIUM PERENNE SSP. MULTIFLORUM)	40	1.0	0.5	FEB 15 TO APRIL 30, AUG 15 TO NOV 30	
BARLEY (HORDEUM VULGARE)	96	2.2	1.0	FEB 15 TO APRIL 30, AUG 15 TO NOV 30	
OATS (AVENA SATIVA)	72	1.7	1.0	FEB 15 TO APRIL 30, AUG 15 TO NOV 30	
WHEAT (TRITICUM AESTIVUM)	120	2.8	1.0	FEB 15 TO APRIL 30, AUG 15 TO NOV 30	
CEREAL RYE (SECALE CEREALE)	112	2.8	1.0	FEB 15 TO APRIL 30, AUG 15 TO DEC 15	
WARM-SEASON GRASSES	•				
FOXTAIL MILLET (SETARIA ITALICA)	30	0.7	0.5	MAY 1 TO AUG 14	
PEARL MILLET (PENNISETUM GLAUCUM)	20	0.5	0.5	MAY 1 TO AUG 14	

FERTILIZER RATE (10-20-20): 436 LB/AC (10 LB/1000 SF)

LIME RATE: 2 TONS/AC (90 LB/1000 SF)

B-4-5 STANDARDS AND SPECIFICATIONS

FOR

PERMANENT STABILIZATION

Definition

To stabilize disturbed soils with permanent vegetation.

Exposed soils where ground cover is needed for 6 months or more.

Purpose

To use long-lived perennial grasses and legumes to establish permanent ground cover on disturbed soils.

Conditions Where Practice Applies

Seed Mixtures

- General Use
- a. Select one or more of the species or mixtures listed in Table B.3 for the appropriate Plant Hardiness Zone (from Figure B.3) and based on the site condition or purpose found on Table B.2. Enter selected mixture(s), application rates, and seeding dates in the Permanent Seeding Summary. The Summary is to be placed on the plan.
- b. Additional planting specifications for exceptional sites such as shorelines, stream banks, or dunes or for special purposes such as wildlife or aesthetic treatment may be found in USDA-NRCS Technical Field Office Guide, Section 342 - Critical Area Planting.
- c. For sites having disturbed area over 5 acres, use and show the rates recommended by the soil testing agency.
- d. For areas receiving low maintenance, apply urea form fertilizer (46-0-0) at 3 ½ pounds per 1000 square feet (150 pounds per acre) at the time of seeding in addition to the soil amendments shown in the Permanent Seeding Summary .

Turfgrass Mixtures

- a. Areas where turfgrass may be desired include lawns, parks, playgrounds, and commercial sites which will receive a medium to high level of maintenance.
- b. Select one or more of the species or mixtures listed below based on the site conditions or purpose. Enter selected mixture(s), application rates, and seeding dates in the Permanent Seeding Summary. The summary is to be placed on the plan.
- i. Kentucky Bluegrass: Full Sun Mixture: For use in areas that receive intensive management. Irrigation required in the areas of central Maryland and Eastern Shore. Recommended Certified Kentucky Bluegrass Cultivars Seeding Rate: 1.5 to 2.0 pounds per 1000 square feet. Choose a minimum of three Kentucky bluegrass cultivars with each ranging from 10 to 35 percent of the total mixture by weight.
- ii. Kentucky Bluegrass/Perennial Rye: Full Sun Mixture: For use in full sun areas where

B.21

- rapid establishment is necessary and when turf will receive medium to intensive management. Certified Perennial Ryegrass Cultivars/Certified Kentucky Bluegrass Seeding Rate: 2 pounds mixture per 1000 square feet. Choose a minimum of three Kentucky bluegrass cultivars with each ranging from 10 to 35 percent of the total mixture by weight.
- iii. Tall Fescue/Kentucky Bluegrass: Full Sun Mixture: For use in drought prone areas and/or for areas receiving low to medium management in full sun to medium shade. Recommended mixture includes; Certified Tall Fescue Cultivars 95 to 100 percent, Certified Kentucky Bluegrass Cultivars 0 to 5 percent. Seeding Rate: 5 to 8 pounds per 1000 square feet. One or more cultivars may be blended.
- iv. Kentucky Bluegrass/Fine Fescue: Shade Mixture: For use in areas with shade in Bluegrass lawns. For establishment in high quality, intensively managed turf area. Mixture includes; Certified Kentucky Bluegrass Cultivars 30 to 40 percent and Certified Fine Fescue and 60 to 70 percent. Seeding Rate: 1½ to 3 pounds per 1000 square feet.

Select turfgrass varieties from those listed in the most current University of Maryland Publication, Agronomy Memo #77, "Turfgrass Cultivar Recommendations for Maryland"

Choose certified material. Certified material is the best guarantee of cultivar purity. The certification program of the Maryland Department of Agriculture, Turf and Seed Section, provides a reliable means of consumer protection and assures a pure genetic line

Ideal Times of Seeding for Turf Grass Mixtures

Western MD: March 15 to June 1, August 1 to October 1 (Hardiness Zones: 5b, 6a)

Central MD: March 1 to May 15, August 15 to October 15 (Hardiness Zone: 6b)

Southern MD, Eastern Shore: March 1 to May 15, August 15 to October 15 (Hardiness Zones: 7a, 7b)

- d. Till areas to receive seed by disking or other approved methods to a depth of 2 to 4 inches, level and rake the areas to prepare a proper seedbed. Remove stones and debris over 11/2 inches in diameter. The resulting seedbed must be in such condition that future mowing of grasses will pose no difficulty.
- e. If soil moisture is deficient, supply new seedings with adequate water for plant growth (1/2 to 1 inch every 3 to 4 days depending on soil texture) until they are firmly established. This is especially true when seedings are made late in the planting season, in abnormally dry or hot seasons, or on adverse sites.

TARLE R 2. DEPMANENT SEEDING FOR SITE STARILIZATION

		TABLE B.Z. PERMANEN	I SEEDING FOR SITE STABI	LIZATION				
	HARDINESS ZONE: 7A				1	TILIZER 10–20–		LIME
NO.	SPECIES	APPLICATION RATE (LB/AC)	SEEDING DEPTHS	N	P ₂ O ₅	к ₂ 0	RATE	
	HARD FESCUE (FESTUCA TRACHYPHYLLA)	20	FED 15 TO ADD 30	1/4"-1/2"	AC AC			S/AC 000 SF)
5	PERENNIAL RYEGRASS (LOLIUM PERENNE)	10	FEB 15 TO APR 30 AUG 15 TO OCT 31 NOV 1 TO NOV 30*	1/4"-1/2"		SF)	LB/AC /1000 SF)	
	FLATPEA (LATHYRUS SYLVESTRIS)	15		1/4"-1/2"		AC /AC		
] # E	フピ	7.8	X E
	TALL FESCUE (LOLIUM ARUNDINACEUM)	60	FEB 15 TO APR 30 AUG 15 TO OCT 31 NOV 1 TO NOV 30*	14"-12"	- 9.1	90 2.0 LB	90 2.0 LB	2 TONS (90 LB/1
9	KENTUCKY BLUEGRASS (POA PRATENSIS)	40		1/4"-1/2"	<u>\(\lambda_1^2 - \lambda_2^2 \) \(\lambda_2^2 - \lambda_2^2 \) \(\lambda_2^2 - \lambda_2^2 - \lambda_2^2 \) \(\lambda_2^2 - </u>		(2	5)
	PERENNIAL RYEGRASS (LOLIUM PERENNE)	20		1/4"-1/2"				

Sod: To provide quick cover on disturbed areas (2:1 grade or flatter).

General Specifications

- a. Class of turfgrass sod must be Maryland State Certified. Sod labels must be made available to the job foreman and inspector.
- b. Sod must be machine cut at a uniform soil thickness of ¾ inch, plus or minus ¼ inch, at the time of cutting. Measurement for thickness must exclude top growth and thatch. Broken pads and torn or uneven ends will not be acceptable.
- c. Standard size sections of sod must be strong enough to support their own weight and retain their size and shape when suspended vertically with a firm grasp on the upper 10 percent of the
- d. Sod must not be harvested or transplanted when moisture content (excessively dry or wet) may adversely affect its survival.
- e. Sod must be harvested, delivered, and installed within a period of 36 hours. Sod not transplanted within this period must be approved by an agronomist or soil scientist prior to its

Sod Installation

- a. During periods of excessively high temperature or in areas having dry subsoil, lightly irrigate the subsoil immediately prior to laying the sod.
- b. Lay the first row of sod in a straight line with subsequent rows placed parallel to it and tightly wedged against each other. Stagger lateral joints to promote more uniform growth and strength. Ensure that sod is not stretched or overlapped and that all joints are butted tight in order to prevent voids which would cause air drying of the roots.
- c. Wherever possible, lay sod with the long edges parallel to the contour and with staggering joints. Roll and tamp, peg or otherwise secure the sod to prevent slippage on slopes. Ensure solid contact exists between sod roots and the underlying soil surface.
- d. Water the sod immediately following rolling and tamping until the underside of the new sod pad and soil surface below the sod are thoroughly wet. Complete the operations of laying, tamping and irrigating for any piece of sod within eight hours.

B.23

Sod Maintenance

a. In the absence of adequate rainfall, water daily during the first week or as often and sufficiently as necessary to maintain moist soil to a depth of 4 inches. Water sod during the heat of the day to prevent wilting.

B.24

- b. After the first week, sod watering is required as necessary to maintain adequate moisture
- c. Do not mow until the sod is firmly rooted. No more than 1/3 of the grass leaf must be removed by the initial cutting or subsequent cuttings. Maintain a grass height of at least 3 inches unless otherwise specified.



CONSULTANTS

CITY OF COLLEGE PARK, MARYLAND

THIS PLAN HAS BEEN REVIEWED AND APPROVED FOR GENERAL CONFORMANCE WITH THE PROVISIONS OF THE CITY CODE, APPROVAL THEREOF DOES NOT RELIEVE THE DEVELOPER OF ANY OTHER REQUIRED PROVISIONS OF THE CODE OR STANDARDS.

CITY MANAGER	PUBLIC WORKS DIRECTO

CITY ENGINEER

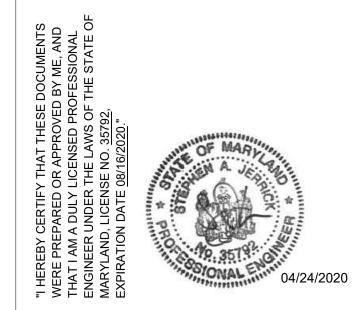
COMMUNITY SERVICES DIRECTOR

OWNER / DEVELOPER:

PLANNING DIRECTOR

CITY OF COLLEGE PARK DEPTMENT OF PUBLIC WORKS 9217 51ST AVE COLLEGE PARK, MD 20740

HOLLYWOOD DOG PARK 9300 BLOCK 51ST AVENUE (EAST SIDE) COLLEGE PARK, MD 20740



MARK	DATE	DESCRIPTION
'		
PROJE	CT NO:	18-0681.001
SCALE:	:	N/A

EROSION & SEDIMENT CONTROL NOTES

ABS

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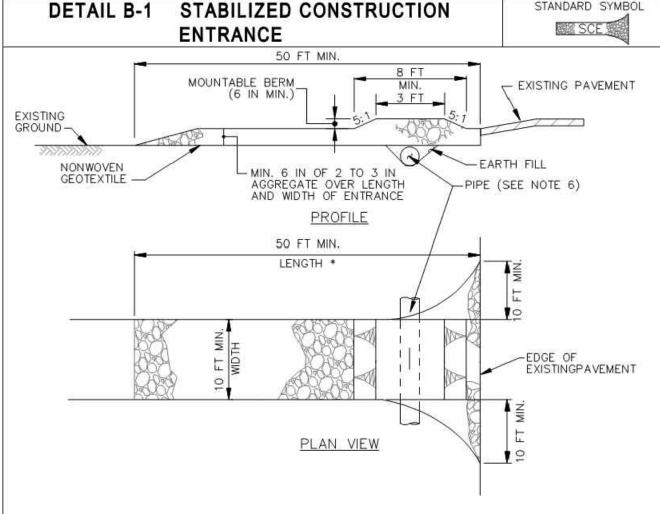
DESIGNED BY

CHECKED BY:

SHEET TITLE

DRAWN BY:

B.22



CONSTRUCTION SPECIFICATIONS

LOCATED AT A HIGH SPOT.

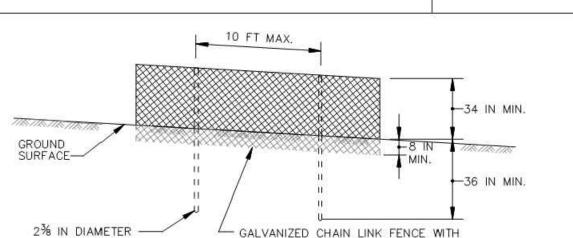
- PLACE STABILIZED CONSTRUCTION ENTRANCE IN ACCORDANCE WITH THE APPROVED PLAN. VEHICLES MUST TRAVEL OVER THE ENTIRE LENGTH OF THE SCE. USE MINIMUM LENGTH OF 50 FEET (*30 FEET FOR SINGLE RESIDENCE LOT). USE MINIMUM WIDTH OF 10 FEET. FLARE SCE 10 FEET MINIMUM AT THE EXISTING ROAD TO PROVIDE A TURNING RADIUS.
- PIPE ALL SURFACE WATER FLOWING TO OR DIVERTED TOWARD THE SCE UNDER THE ENTRANCE. MAINTAINING POSITIVE DRAINAGE. PROTECT PIPE INSTALLED THROUGH THE SCE WITH A MOUNTABLE BERM WITH 5:1 SLOPES AND A MINIMUM OF 12 INCHES OF STONE OVER THE PIPE, PROVIDE PIPE AS SPECIFIED ON APPROVED PLAN. WHEN THE SCE IS LOCATED AT A HIGH SPOT AND HAS NO DRAINAGE TO CONVEY, A PIPE IS NOT NECESSARY. A MOUNTABLE BERM IS REQUIRED WHEN SCE IS NOT
- 3. PREPARE SUBGRADE AND PLACE NONWOVEN GEOTEXTILE, AS SPECIFIED IN SECTION H-1 MATERIALS.
- 4. PLACE CRUSHED AGGREGATE (2 TO 3 INCHES IN SIZE) OR EQUIVALENT RECYCLED CONCRETE (WITHOUT REBAR) AT LEAST 6 INCHES DEEP OVER THE LENGTH AND WIDTH OF THE SCE.
- MAINTAIN ENTRANCE IN A CONDITION THAT MINIMIZES TRACKING OF SEDIMENT. ADD STONE OR MAKE OTHER REPAIRS AS CONDITIONS DEMAND TO MAINTAIN CLEAN SURFACE, MOUNTABLE BERM, AND SPECIFIED DIMENSIONS. IMMEDIATELY REMOVE STONE AND/OR SEDIMENT SPILLED, DROPPED, OR TRACKED ONTO ADJACENT ROADWAY BY VACUUMING, SCRAPING, AND/OR SWEEPING. WASHING ROADWAY TO REMOVE MUD TRACKED ONTO PAVEMENT IS NOT ACCEPTABLE UNLESS WASH WATER IS DIRECTED TO AN APPROVED SEDIMENT CONTROL PRACTICE.

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

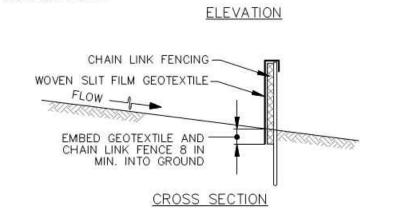
B.2

U.S. DEPARTMENT OF AGRICULTURE MARYLAND DEPARTMENT OF ENVIRONMENT NATURAL RESOURCES CONSERVATION SERVICE WATER MANAGEMENT ADMINISTRATION

DETAIL E-3 SUPER SILT FENCE



WOVEN SLIT FILM GEOTEXTILE



CONSTRUCTION SPECIFICATIONS

GAI VANIZ

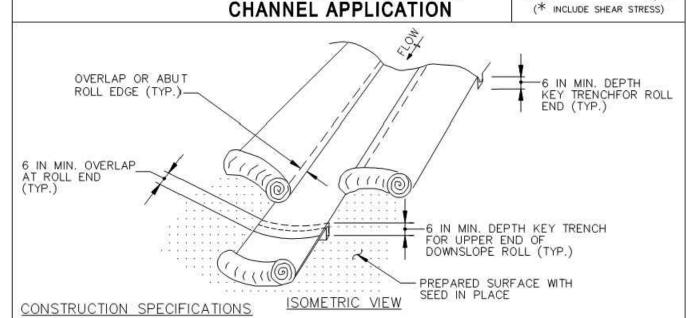
ALUMINUM POST

- INSTALL 23/8 INCH DIAMETER GALVANIZED STEEL POSTS OF 0.095 INCH WALL THICKNESS AND SIX FOOT LENGTH SPACED NO FURTHER THAN 10 FEET APART, DRIVE THE POSTS A MINIMUM OF 36 INCHES INTO THE GROUND.
- FASTEN 9 GAUGE OR HEAVIER GALVANIZED CHAIN LINK FENCE (23/6 INCH MAXIMUM OPENING) 42 INCHES IN HEIGHT SECURELY TO THE FENCE POSTS WITH WIRE TIES OR HUG RINGS.
- FASTEN WOVEN SLIT FILM GEOTEXTILE AS SPECIFIED IN SECTION H-1 MATERIALS, SECURELY TO THE UPSLOPE SIDE OF CHAIN LINK FENCE WITH TIES SPACED EVERY 24 INCHES AT THE TOP AND MID
- SECTION. EMBED GEOTEXTILE AND CHAIN LINK FENCE A MINIMUM OF 8 INCHES INTO THE GROUND. WHERE ENDS OF THE GEOTEXTILE COME TOGETHER, THE ENDS SHALL BE OVERLAPPED BY 6 INCHES, FOLDED, AND STAPLED TO PREVENT SEDIMENT BY PASS.
- EXTEND BOTH ENDS OF THE SUPER SILT FENCE A MINIMUM OF FIVE HORIZONTAL FEET UPSLOPE AT 45 DEGREES TO THE MAIN FENCE ALIGNMENT TO PREVENT RUNOFF FROM GOING AROUND THE ENDS OF THE SUPER SILT FENCE.
- PROVIDE MANUFACTURER CERTIFICATION TO THE INSPECTION/ENFORCEMENT AUTHORITY SHOWING THAT GEOTEXTILE USED MEETS THE REQUIREMENTS IN SECTION H-1 MATERIALS.
- REMOVE ACCUMULATED SEDIMENT AND DEBRIS WHEN BULGES DEVELOP IN FENCE OR WHEN SEDIMENT REACHES 25% OF FENCE HEIGHT. REPLACE GEOTEXTILE IF TORN. IF UNDERMINING OCCURS, REINSTALL CHAIN LINK FENCING AND GEOTEXTILE.

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL U.S. DEPARTMENT OF AGRICULTURE MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION NATURAL RESOURCES CONSERVATION SERVICE

E.7

DETAIL B-4-6-A TEMPORARY SOIL STABILIZATION MATTING

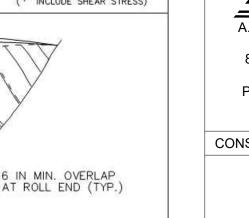


- USE MATTING THAT HAS A DESIGN VALUE FOR SHEAR STRESS EQUAL TO OR HIGHER THAN THE SHEAR STRESS DESIGNATED ON APPROVED PLANS.
- USE TEMPORARY SOIL STABILIZATION MATTING MADE OF DEGRADABLE (LASTS 6 MONTHS MINIMUM) NATURAL OR MAN-MADE FIBERS (MOSTLY ORGANIC). MAT MUST HAVE UNIFORM THICKNESS AND DISTRIBUTION OF FIBERS THROUGHOUT AND BE SMOLDER RESISTANT. CHEMICALS USED IN THE MAT MUST BE NON-LEACHING AND NON-TOXIC TO VEGETATION AND SEED GERMINATION AND NON-INJURIOUS TO THE SKIN. IF PRESENT, NETTING MUST BE EXTRUDED PLASTIC WITH A MAXIMUM MESH OPENING OF 2x2 INCHES AND SUFFICIENTLY BONDED OR SEWN ON 2 INCH CENTERS ALONG LONGITUDINAL AXIS OF THE MATERIAL TO PREVENT SEPARATION OF THE NET FROM THE PARENT MATERIAL.
- SECURE MATTING USING STEEL STAPLES, WOOD STAKES, OR BIODEGRADABLE EQUIVALENT. STAPLES " SHAPED STEEL WIRE HAVING A MINIMUM GAUGE OF NO. 11 AND NO. 8 RESPECTIVELY, "U" SHAPED STAPLES MUST AVERAGE 1 TO 11/2 INCHES WIDE AND BE A MINIMUM OF 6 INCHES LONG. "T" SHAPED STAPLES MUST HAVE A MINIMUM 8 INCH MAIN LEG. A MINIMUM 1 INCH SECONDARY LEG, AND A MINIMUM 4 INCH HEAD. WOOD STAKES MUST BE ROUGH-SAWN HARDWOOD, 12 TO 24 INCHES IN LENGTH, 1x3 INCH IN CROSS SECTION, AND WEDGE SHAPED AT THE BOTTOM.
- PERFORM FINAL GRADING, TOPSOIL APPLICATION, SEEDBED PREPARATION, AND PERMANENT SEEDING IN ACCORDANCE WITH SPECIFICATIONS. PLACE MATTING WITHIN 48 HOURS OF COMPLETING SEEDING OPERATIONS UNLESS END OF WORKDAY STABILIZATION IS SPECIFIED ON THE APPROVED EROSION AND SEDIMENT CONTROL PLAN.
- UNROLL MATTING IN DIRECTION OF WATER FLOW, CENTERING THE FIRST ROLL ON THE CHANNEL CENTERLINE, WORK FROM CENTER OF CHANNEL OUTWARD WHEN PLACING ROLLS. LAY MAT SMOOTHLY AND FIRMLY ON THE SEEDED SURFACE. AVOID STRETCHING THE MATTING.
- KEY-IN UPSTREAM END OF EACH MAT ROLL BY DIGGING A 6 INCH (MINIMUM) TRENCH AT THE UPSTREAM END OF THE MATTING, PLACING THE ROLL END IN THE TRENCH, STAPLING THE MAT IN PLACE, REPLACING THE EXCAVATED MATERIAL, AND TAMPING TO SECURE THE MAT END.
- OVERLAP OR ABUT THE ROLL EDGES PER MANUFACTURER RECOMMENDATIONS. OVERLAP ROLL ENDS BY 6 INCHES (MINIMUM), WITH THE UPSTREAM MAT OVERLAPPING ON TOP OF THE NEXT DOWNSTREAM MAT.
- STAPLE/STAKE MAT IN A STAGGERED PATTERN ON 4 FOOT (MAXIMUM) CENTERS THROUGHOUT AND 2 FOOT (MAXIMUM) CENTERS ALONG SEAMS, JOINTS, AND ROLL ENDS.
- ESTABLISH AND MAINTAIN VEGETATION SO THAT REQUIREMENTS FOR ADEQUATE VEGETATIVE
- ESTABLISHMENT ARE CONTINUOUSLY MET IN ACCORDANCE WITH SECTION B-4 VEGETATIVE

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL U.S. DEPARTMENT OF AGRICULTURE MARYLAND DEPARTMENT OF ENVIRONMENT ATURAL RESOURCES CONSERVATION SERVICE WATER MANAGEMENT ADMINISTRATION B.38

DETAIL B-4-6-B TEMPORARY SOIL STABILIZATION MATTING SLOPE APPLICATION

STANDARD SYMBOL TSSMS - * Ib/ft (* INCLUDE SHEAR STRESS)



CONSTRUCTION SPECIFICATIONS

OVERLAP OR ABUT-

ROLL EDGES (TYP.)

PREPARED SLOPE (SEEDBED) WITH

S IN DEEP (MIN.

KEY IN TRENCH

. USE MATTING THAT HAS A DESIGN VALUE FOR SHEAR STRESS EQUAL TO OR HIGHER THAN THE SHEAR STRESS DESIGNATED ON APPROVED PLANS.

ISOMETRIC VIEW

- 2. USE TEMPORARY SOIL STABILIZATION MATTING MADE OF DEGRADABLE (LASTS 6 MONTHS MINIMUM) NATURAL OR MAN-MADE FIBERS (MOSTLY ORGANIC). MAT MUST HAVE UNIFORM THICKNESS AND DISTRIBUTION OF FIBERS THROUGHOUT AND BE SMOLDER RESISTANT. CHEMICALS USED IN THE MAT MUST BE NON-LEACHING AND NON-TOXIC TO VEGETATION AND SEED GERMINATION AND NON-INJURIOUS TO THE SKIN, IF PRESENT, NETTING MUST BE EXTRUDED PLASTIC WITH A MAXIMUM MESH OPENING OF 2x2 INCHES AND SUFFICIENTLY BONDED OR SEWN ON 2 INCH CENTERS ALONG LONGITUDINAL AXIS OF THE MATERIAL TO PREVENT SEPARATION OF THE NET FROM THE PARENT MATERIAL.
- SECURE MATTING USING STEEL STAPLES, WOOD STAKES, OR BIODEGRADABLE EQUIVALENT. STAPLES MUST BE "U" OR "T" SHAPED STEEL WIRE HAVING A MINIMUM GAUGE OF NO. 11 AND NO. 8 "U" SHAPED STAPLES MUST AVERAGE 1 TO 1½ INCHES WIDE AND BE A MINIMUM OF 6 INCHES LONG. "T" SHAPED STAPLES MUST HAVE A MINIMUM 8 INCH MAIN LEG, A MINIMUM 1 INCH SECONDARY LEG, AND A MINIMUM 4 INCH HEAD. WOOD STAKES MUST BE ROUGH-SAWN HARDWOOD, 2 TO 24 INCHES IN LENGTH, 1x3 INCH IN CROSS SECTION, AND WEDGE SHAPED AT THE BOTTOM.
- PERFORM FINAL GRADING, TOPSOIL APPLICATION, SEEDBED PREPARATION, AND PERMANENT SEEDING IN ACCORDANCE WITH SPECIFICATIONS. PLACE MATTING WITHIN 48 HOURS OF COMPLETING SEEDING OPERATIONS UNLESS END OF WORKDAY STABILIZATION IS SPECIFIED ON THE APPROVED EROSION & SEDIMENT CONTROL PLAN.
- . UNROLL MATTING DOWNSLOPE, LAY MAT SMOOTHLY AND FIRMLY UPON THE SEEDED SURFACE, AVOID STRETCHING THE MATTING.
- 6. OVERLAP OR ABUT ROLL EDGES PER MANUFACTURER RECOMMENDATIONS. OVERLAP ROLL ENDS BY 6 INCHES (MINIMUM), WITH THE UPSLOPE MAT OVERLAPPING ON TOP OF THE DOWNSLOPE MAT.
- KEY IN THE UPSLOPE END OF MAT 6 INCHES (MINIMUM) BY DIGGING A TRENCH, PLACING THE MATTING ROLL END IN THE TRENCH, STAPLING THE MAT IN PLACE, REPLACING THE EXCAVATED MATERIAL, AND TAMPING TO SECURE THE MAT END IN THE KEY.
- 8. STAPLE/STAKE MAT IN A STAGGERED PATTERN ON 4 FOOT (MAXIMUM) CENTERS THROUGHOUT AND 2 FOOT (MAXIMUM) CENTERS ALONG SEAMS, JOINTS, AND ROLL ENDS.
- 9. ESTABLISH AND MAINTAIN VEGETATION SO THAT REQUIREMENTS FOR ADEQUATE VEGETATIVE ESTABLISHMENT ARE CONTINUOUSLY MET IN ACCORDANCE WITH SECTION B-4 VEGETATIVE

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL U.S. DEPARTMENT OF AGRICULTURE MARYLAND DEPARTMENT OF ENVIRONMENT NATURAL RESOURCES CONSERVATION SERVICE WATER MANAGEMENT ADMINISTRATION B.39



CONSULTING ENGINEERS 800 KING FARM BOULEVARD, 4TH FLOOR ROCKVILLE, MD 20850 PHONE (301) 881-2545 | FAX (301) 881-0814 EMAIL: AMT1@AMTENGINEERING.COM

CONSULTANTS

CITY OF COLLEGE PARK, MARYLAND

THIS PLAN HAS BEEN REVIEWED AND APPROVED FOR GENERAL CONFORMANCE WITH THE PROVISIONS OF THE CITY CODE, APPROVAL THEREOF DOES NOT RELIEVE THE DEVELOPER OF ANY OTHER REQUIRED PROVISIONS OF THE CODE OR STANDARDS.

> CITY MANAGER PUBLIC WORKS DIRECTOR

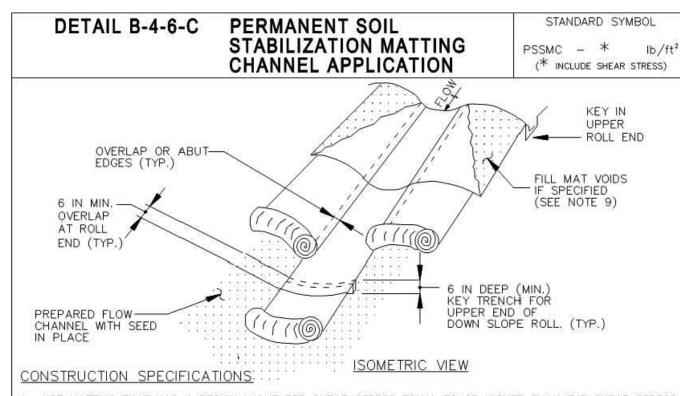
PLANNING DIRECTOR CITY ENGINEER

COMMUNITY SERVICES DIRECTOR

OWNER / DEVELOPER:

CITY OF COLLEGE PARK DEPTMENT OF PUBLIC WORKS 9217 51ST AVE COLLEGE PARK, MD 20740

HOLLYWOOD DOG PARK 9300 BLOCK 51ST AVENUE (EAST SIDE) COLLEGE PARK, MD 20740



- USE MATTING THAT HAS A DESIGN VALUE FOR SHEAR STRESS EQUAL TO OR HIGHER THAN THE SHEAR STRESS DESIGNATED ON APPROVED PLANS.
- USE PERMANENT SOIL STABILIZATION MATTING MADE OF OPEN WEAVE SYNTHETIC, NON-DEGRADABLE FIBERS OR ELEMENTS OF UNIFORM THICKNESS AND DISTRIBUTION THROUGHOUT. CHEMICALS USED IN THE MAT MUST BE NON-LEACHING AND NON-TOXIC TO VEGETATION AND SEED GERMINATION AND NON-INJURIOUS TO THE SKIN. IF PRESENT, NETTING MUST BE EXTRUDED PLASTIC WITH A MAXIMUM MESH OPENING OF 2x2 INCHES AND SUFFICIENTLY BONDED OR SEWN ON 2 INCH CENTERS ALONG LONGITUDINAL AXIS OF THE MATERIAL TO PREVENT SEPARATION OF THE NET FROM THE PARENT MATERIAL
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- UNROLL MATTING IN DIRECTION OF WATER FLOW, CENTERING THE FIRST ROLL ON THE CHANNEL CENTER LINE. WORK FROM CENTER OF CHANNEL OUTWARD WHEN PLACING ROLLS, LAY MATTING SMOOTHLY AND FIRMLY UPON THE SEEDED SURFACE. AVOID STRETCHING THE MATTING
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- STAPLE/STAKE MAT IN A STAGGERED PATTERN ON 4 FOOT (MAXIMUM) CENTERS THROUGHOUT AND 2 FOOT (MAXIMUM) CENTERS ALONG SEAMS, JOINTS, AND ROLL ENDS.
- IF SPECIFIED BY THE DESIGNER OR MANUFACTURER AND DEPENDING ON THE TYPE OF MAT BEING INSTALLED, ONCE THE MATTING IS KEYED AND STAPLED IN PLACE, FILL THE MAT VOIDS WITH TOP SOIL OR GRANULAR MATERIAL AND LIGHTLY COMPACT OR ROLL TO MAXIMIZE SOIL/MAT CONTACT WITHOUT CRUSHING MAT.

IO. ESTABLISH AND MAINTAIN VEGETATION SO THAT REQUIREMENTS FOR ADEQUATE VEGETATIVE ESTABLISHMENT

ARE CONTINUOUSLY MET IN ACCORDANCE WITH SECTION B-4 VEGETATIVE STABILIZATION.

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL U.S. DEPARTMENT OF AGRICULTURE MARYLAND DEPARTMENT OF ENVIRONMENT 2011 NATURAL RESOURCES CONSERVATION SERVICE WATER MANAGEMENT ADMINISTRATION

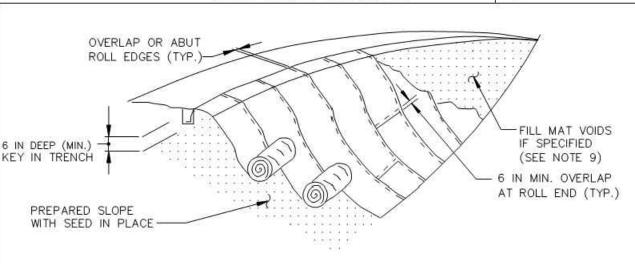
B.40

DETAIL B-4-6-D PERMANENT SOIL STABILIZATION MATTING SLOPE APPLICATION

STANDARD SYMBOL PSSMS - * lb/ft2 (* INCLUDE SHEAR STRESS)

STANDARD SYMBOL

---SSF----I



CONSTRUCTION SPECIFICATIONS

- USE MATTING THAT HAS A DESIGN VALUE FOR SHEAR STRESS EQUAL TO OR HIGHER THAN THE SHEAR STRESS DESIGNATED ON APPROVED PLANS.
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ISOMETRIC VIEW

- SECURE MATTING USING STEEL STAPLES OR WOOD STAKES. STAPLES MUST BE "U" OR "T" SHAPED STEEL WIRE HAVING A MINIMUM GAUGE OF NO. 11 AND NO. 8 RESPECTIVELY. "U" SHAPED STAPLES MUST AVERAGE 1 TO 11/2 INCHES WIDE AND BE A MINIMUM OF 6 INCHES LONG. "T" SHAPED STAPLES MUST HAVE A MINIMUM 8 INCH MAIN LEG, A MINIMUM 1 INCH SECONDARY LEG, AND MINIMUM 4 INCH HEAD. WOOD STAKES MUST BE ROUGH-SAWN HARDWOOD, 12 TO 24 INCHES IN LENGTH, 1x3 INCH IN CROSS SECTION, AND WEDGE SHAPE AT
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- KEY IN THE TOP OF SLOPE END OF MAT 6 INCHES (MINIMUM) BY DIGGING A TRENCH, PLACING THE MATTING ROLL END IN THE TRENCH, STAPLING THE MAT IN PLACE, REPLACING THE EXCAVATED MATERIAL, AND TAMPING TO SECURE THE MAT END IN THE KEY.
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MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL U.S. DEPARTMENT OF AGRICULTURE MARYLAND DEPARTMENT OF ENVIRONMENT 2011 IATURAL RESOURCES CONSERVATION SERVICE WATER MANAGEMENT ADMINISTRATION

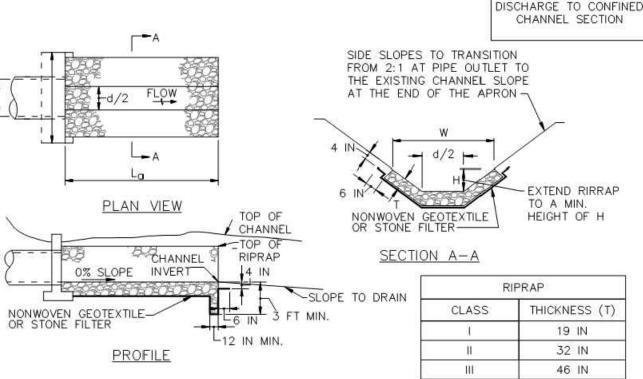
B.41

DETAIL D-4-1-B ROCK OUTLET PROTECTION II

STANDARD SYMBOL ROPII

STANDARD SYMBOL

TSSMC - * Ib/ft2

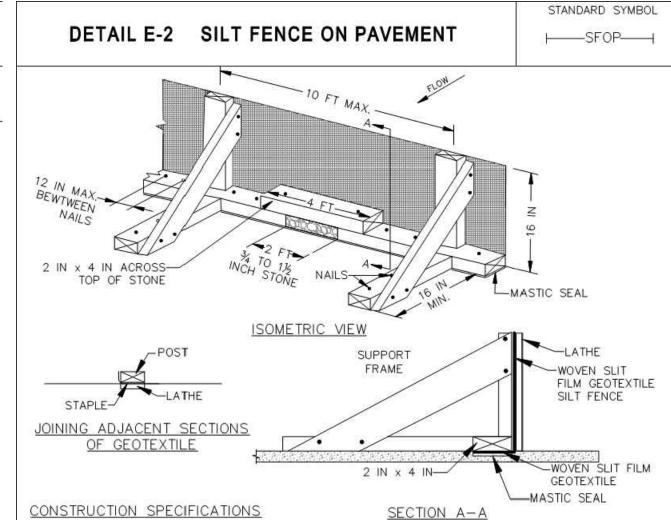


CONSTRUCTION SPECIFICATIONS

- RIPRAP AND STONE MUST CONFORM TO THE SPECIFIED CLASS.
- USE NONWOVEN GEOTEXTILE AS SPECIFIED IN SECTION H-1 MATERIALS, AND PROTECT FROM PUNCTURING, CUTTING, OR TEARING. REPAIR ANY DAMAGE OTHER THAN AN OCCASIONAL SMALL HOLE BY PLACING ANOTHER PIECE OF GEOTEXTILE OVER THE DAMAGED PART OR BY COMPLETELY REPLACING THE GEOTEXTILE. PROVIDE A MINIMUM OF ONE FOOT OVERLAP FOR ALL REPAIRS AND FOR JOINING TWO PIECES OF GEOTEXTILE TOGETHER.
- PREPARE THE SUBGRADE FOR GEOTEXTILE OR STONE FILTER (% TO 1% INCH STONE FOR 6 INCH MINIMUM DEPTH) AND RIPRAP TO THE REQUIRED LINES AND GRADES, COMPACT ANY FILL REQUIRED IN THE SUBGRADE TO A DENSITY OF APPROXIMATELY THAT OF THE SURROUNDING UNDISTURBED MATERIAL
- EXTEND GEOTEXTILE AT LEAST 6 INCHES BEYOND EDGES OF RIPRAP AND EMBED AT LEAST 4 INCHES AT SIDES OF RIPRAP. CONSTRUCT RIPRAP OUTLET TO FULL COURSE THICKNESS IN ONE OPERATION AND IN SUCH A MANNER
- AS TO AVOID DISPLACEMENT OF UNDERLYING MATERIALS. PLACE STONE FOR RIPRAP OUTLET IN A MANNER THAT WILL ENSURE THAT IT IS REASONABLY HOMOGENOUS WITH THE SMALLER STONES AND SPALLS FILLING THE VOIDS BETWEEN THE LARGER STONES. PLACE RIPRAP IN A MANNER TO PREVENT DAMAGE TO THE STONE FILTER BLANKET OR GEOTEXTILE. HAND PLACE TO THE EXTENT NECESSARY.
- WHERE NO ENDWALL IS USED, CONSTRUCT THE UPSTREAM END OF THE APRON SO THAT THE WIDTH IS TWO TIMES THE DIAMETER OF THE OUTLET PIPE, AND EXTEND THE STONE UNDER THE OUTLET BY A MINIMUM OF 18 INCHES.
- CONSTRUCT APRON WITH 0% SLOPE ALONG ITS LENGTH AND WITHOUT OBSTRUCTIONS. PLACE STONE SO THAT IT BLENDS IN WITH EXISTING GROUND.
- MAINTAIN LINE, GRADE, AND CROSS SECTION. KEEP OUTLET FREE OF EROSION. REMOVE ACCUMULATED SEDIMENT AND DEBRIS. AFTER HIGH FLOWS INSPECT FOR SCOUR AND DISLODGED RIPRAP. MAKE NECESSARY REPAIRS IMMEDIATELY.

U.S. DEPARTMENT OF AGRICULTURE IATURAL RESOURCES CONSERVATION SERVICE	2011	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION
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MANUFACTANDADOS AND ODESIGIOATIONO FOR SOIL EDOCION AND OCCUPENT CONTRO



CONSTRUCTION SPECIFICATIONS

- USE NOMINAL 2 INCH X 4 INCH LUMBER.
- USE WOVEN SLIT FILM GEOTEXTILE, AS SPECIFIED IN SECTION H-1 MATERIALS.
- PROVIDE MANUFACTURER CERTIFICATION TO THE AUTHORIZED REPRESENTATIVE OF THE INSPECTION/ENFORCEMENT AUTHORITY SHOWING THAT THE GEOTEXTILE USED MEETS THE REQUIREMENTS IN SECTION H-1 MATERIALS.
- . SPACE UPRIGHT SUPPORTS NO MORE THAN 10 FEET APART.
- PROVIDE A TWO FOOT OPENING BETWEEN EVERY SET OF SUPPORTS AND PLACE STONE IN THE OPENING OVER GEOTEXTILE.
- KEEP SILT FENCE TAUT AND SECURELY STAPLE TO THE UPSLOPE SIDE OF UPRIGHT SUPPORTS. EXTEND GEOTEXTILE UNDER 2x4.
- WHERE TWO SECTIONS OF GEOTEXTILE ADJOIN: OVERLAP, FOLD, AND STAPLE TO POST IN ACCORDANCE WITH THIS DETAIL, ATTACH LATHE.
- PROVIDE A MASTIC SEAL BETWEEN PAVEMENT, GEOTEXTILE, AND 2x4 TO PREVENT SEDIMENT-LADEN WATER FROM ESCAPING BENEATH SILT FENCE INSTALLATION.
- . SECURE BOARDS TO PAVEMENT WITH 40D 5 INCH MINIMUM LENGTH NAILS.
- REMOVE ACCUMULATED SEDIMENT AND DEBRIS WHEN BULGES DEVELOP IN SILT FENCE OR WHEN SEDIMENT REACHES 25% OF FENCE HEIGHT. REPLACE GEOTEXTILE IF TORN. MAINTAIN WATER TIGHT SEAL ALONG BOTTOM. REPLACE STONE IF DISPLACED.

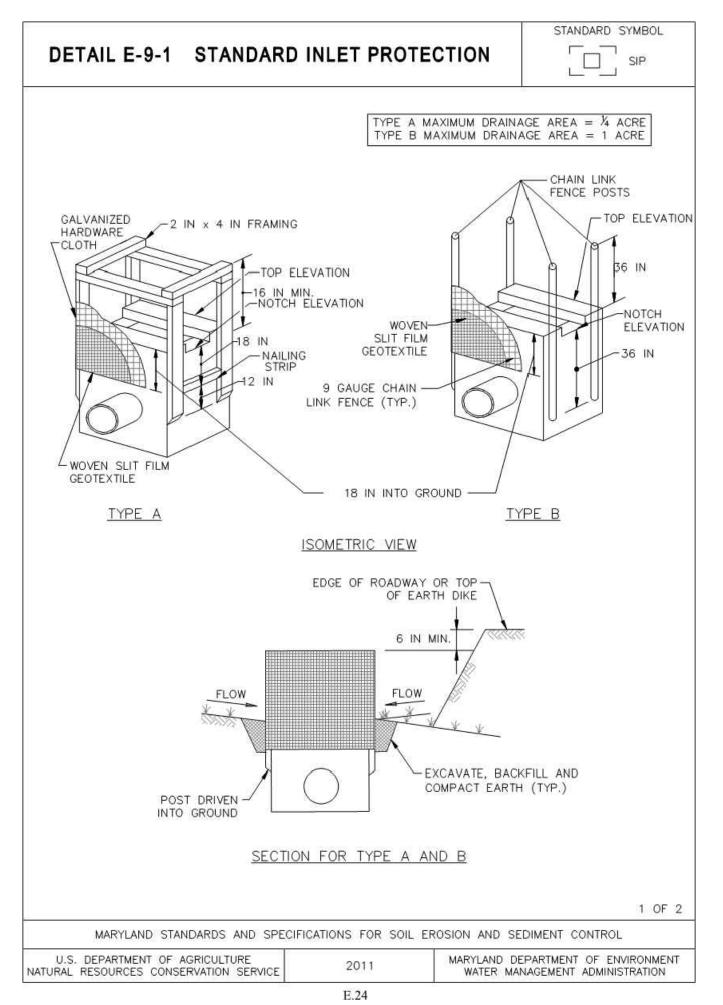
MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL U.S. DEPARTMENT OF AGRICULTURE MARYLAND DEPARTMENT OF ENVIRONMENT NATURAL RESOURCES CONSERVATION SERVICE WATER MANAGEMENT ADMINISTRATION

E.5

DESCRIPTION MARK DATE PROJECT NO: 18-0681.001 SCALE: N/A **DESIGNED BY** ABS DRAWN BY: SK CHECKED BY: SAJ

> **EROSION & SEDIMENT CONTROL DETAILS**

SHEET TITLE



H-1 STANDARDS AND SPECIFICATIONS

FOR MATERIALS

Table H.1: Geotextile Fabrics

			WOVEN SLIT FILM GEOTEXTILE		WOVEN MONOFILAMENT GEOTEXTILE		NONWOVEN GEOTEXTILE	
		MINIMUM AVERAGE ROLL VALUE ¹						
PROPERTY	TEST METHOD	MD	CD	MD	CD	MD	CD	
Grab Tensile Strength	ASTM D-4632	200 lb	200 lb	370 lb	250 lb	200 lb	200 lb	
Grab Tensile Elongation	ASTM D-4632	15%	10%	15%	15%	50%	50%	
Trapezoidal Tear Strength	ASTM D-4533	75 lb	75 lb	100 lb	60 lb	80 lb	80 lb	
Puncture Strength	ASTM D-6241	450) lb	900	lb	450 lb		
Apparent Opening Size ²	ASTM D-4751	U.S. Sieve 30 (0.59 mm)		U.S. Sieve 70 (0.21 mm)		U.S. Sieve 70 (0.21 mm)		
Permittivity	ASTM D-4491	0.05 sec ⁻¹		0.28 sec ⁻¹		1.1 sec ⁻¹		
Ultraviolet Resistance Retained at 500 hours ASTM D-4355		70% s	trength	70% strength		70% strength		

All numeric values except apparent opening size (AOS) represent minimum average roll values (MARV). MARV is calculated as the typical minus two standard deviations. MD is machine direction; CD is cross direction.

Geotextiles must be evaluated by the National Transportation Product Evaluation Program (NTPEP) and conform to the values in Table H.1.

The geotextile must be inert to commonly encountered chemicals and hydrocarbons and must be rot and mildew resistant. The geotextile must be manufactured from fibers consisting of long chain synthetic polymers and composed of a minimum of 95 percent by weight of polyolefins or polyesters, and formed into a stable network so the filaments or yarns retain their dimensional stability relative to each other, including selvages.

When more than one section of geotextile is necessary, overlap the sections by at least one foot. The geotextile must be pulled taut over the applied surface. Equipment must not run over exposed fabric. When placing riprap on geotextile, do not exceed a one foot drop height.

H.1

Table H.2: Stone Size

ТҮРЕ	SIZE RANGE	d ₅₀	\mathbf{d}_{100}	AASHTO	MIDSIZE WEIGHT ³
NUMBER 57 ¹	3/8 to 1 1/2 inch	½ in	1 ½ in	M-43	N/A
NUMBER 1	2 to 3 inch	2 ½ in	3 in	M-43	N/A
RIPRAP ² (CLASS 0)	4 to 7 inch	5 ½ in	7 in	N/A	N/A
CLASS I	N/A	9 ½ in	15 in	N/A	40 lb
CLASS II	N/A	16 in	24 in	N/A	200 lb
CLASS III	N/A	23 in	34 in	N/A	600 lb

¹ This classification is to be used on the upstream face of stone outlets and check dams.

Stone must be composed of a well graded mixture of stone sized so that fifty (50) percent of the pieces by weight are larger than the size determined by using the charts. A well graded mixture, as used herein, is defined as a mixture composed primarily of larger stone sizes but with a sufficient mixture of other sizes to fill the smaller voids between the stones. The diameter of the largest stone in such a mixture must not exceed the respective d₁₀₀ selected from Table H.2. The d₅₀ refers to the median diameter of the stone. This is the size for which 50 percent, by weight, will be smaller and 50 percent will be larger.

Note: Recycled concrete equivalent may be substituted for all stone classifications for temporary control measures only. Concrete broken into the sizes meeting the appropriate classification, containing no steel reinforcement, and having a minimum density of 150 pounds per cubic foot may be used as an equivalent.

Table H.3: Compost

Parameters1	Acceptable Range		
pH	5.0 - 8.5		
Moisture content	30% - 60%, wet weight basis		
Organic matter content	25% - 65%, dry weight basis		
Particle size	% passing a selected mesh size, dry weight basis 3 in (75 mm), 100% passing 1 in (25 mm), 90 – 100% passing 0.75 in (19 mm), 70 – 100% passing 0.25 in (6.4 mm), 30 – 60% passing 0.04 in (1 mm), 30% min. passing		
Physical contaminants (manmade inerts)	<1% dry weight basis		

Adapted from AASHTO Standards Specs for Compost Filter Socks and EPA Example Compost Filter Parameters.

¹ Recommended test methodologies are provided in Test Methods for the Examination of Composting and Compost (TMEC, The U.S Composting Council).

H.3

Parameters ¹	Acceptable Range
pH	5.0 - 8.5
Moisture content	30% - 60%, wet weight basis
Organic matter content	25% - 65%, dry weight basis
Particle size	% passing a selected mesh size, dry weight basis 3 in (75 mm), 100% passing 1 in (25 mm), 90 – 100% passing 0.75 in (19 mm), 70 – 100% passing 0.25 in (6.4 mm), 30 – 60% passing 0.04 in (1 mm), 30% min. passing
Physical contaminants (manmade inerts)	<1% dry weight basis

PLANNING DIRECTOR CITY ENGINEER

COMMUNITY SERVICES DIRECTOR

CITY MANAGER

CONSULTING ENGINEERS

800 KING FARM BOULEVARD, 4TH FLOOR

ROCKVILLE, MD 20850 PHONE (301) 881-2545 | FAX (301) 881-0814

EMAIL: AMT1@AMTENGINEERING.COM

CITY OF COLLEGE PARK, MARYLAND

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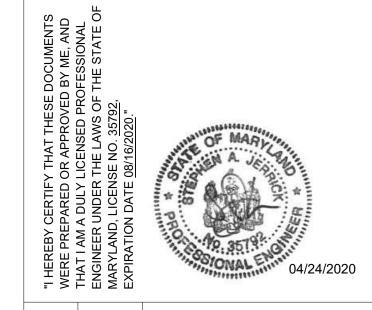
PUBLIC WORKS DIRECTOR

CONSULTANTS

OWNER / DEVELOPER:

CITY OF COLLEGE PARK DEPTMENT OF PUBLIC WORKS 9217 51ST AVE COLLEGE PARK, MD 20740

HOLLYWOOD DOG PARK 9300 BLOCK 51ST AVENUE (EAST SIDE) COLLEGE PARK, MD 20740



//ARK	DATE	DESCRIPTION
PROJECT NO:		18-0681.001
SCALE:		N/A
DESIGNED BY:		ABS
DRAWN BY:		SK

SAJ

EROSION & SEDIMENT CONTROL DETAILS

CHECKED BY:

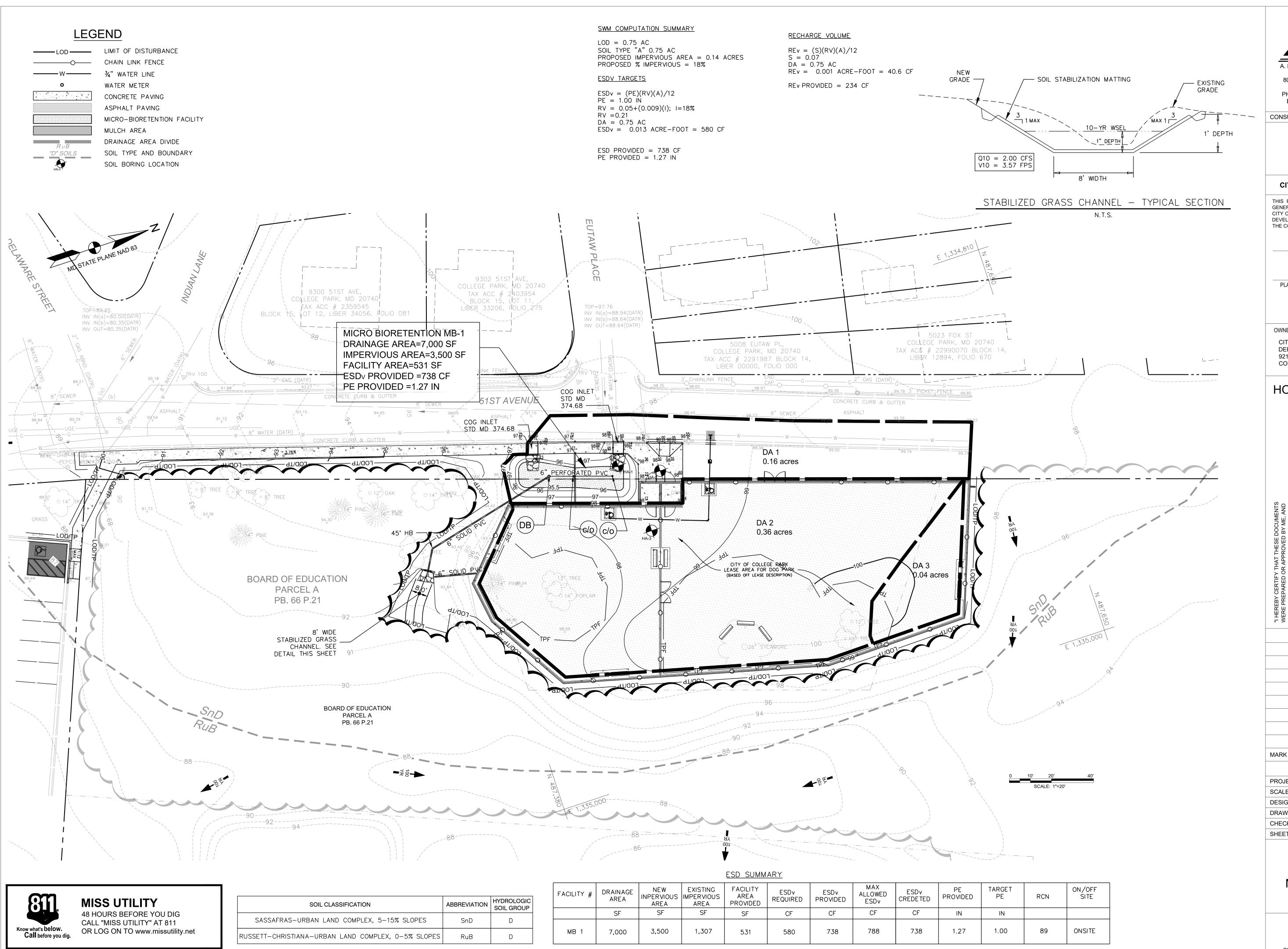
SHEET TITLE

H.2

Values for AOS represent the average maximum opening.

² This classification is to be used for gabions.

³ Optimum gradation is 50 percent of the stone being above and 50 percent below the midsize.



A MORTON THOMAS AND ASSOCIATES INC

CONSULTING ENGINEERS

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CONSULTANTS

CITY OF COLLEGE PARK, MARYLAND

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CITY MANAGER PUBLIC WORKS DIRECTOR

PLANNING DIRECTOR

COMMUNITY SERVICES DIRECTOR

CITY ENGINEER

EVEL OBED

OWNER / DEVELOPER:

CITY OF COLLEGE PARK DEPTMENT OF PUBLIC WORKS 9217 51ST AVE COLLEGE PARK, MD 20740

HOLLYWOOD DOG PARK 9300 BLOCK 51ST AVENUE (EAST SIDE) COLLEGE PARK, MD 20740

"I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE ON MARYLAND, LICENSE NO. 35792, EXPIRATION DATE 08/16/2020."

EXPIRATION DATE 08/16/2020."

ON MARYLAND, LICENSE NO. 35792, EXPIRATION DATE 08/16/2020."

EXPIRATION DATE 08/16/2020."

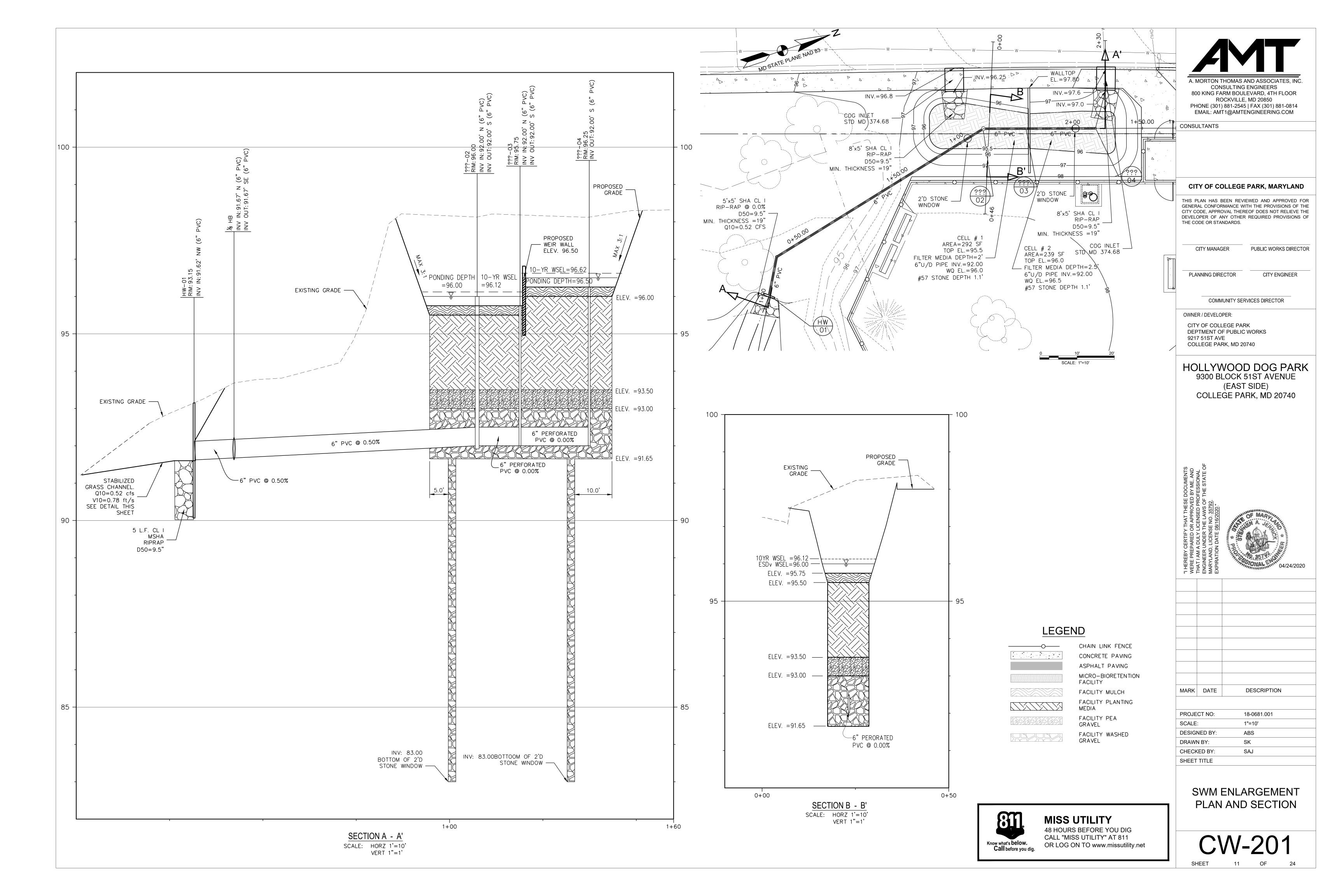
ON MARYLAND, LICENSE NO. 35792, EXPIRATION DATE 08/16/2020."

(DATE	DESCRIPTION

PROJECT NO:	18-0681.001
SCALE:	1"=20'
DESIGNED BY:	ABS
DRAWN BY:	SK
CHECKED BY:	SAJ
SHEET TITLE	

STORMWATER
MANAGEMENT PLAN

CW-101



MICROBIORETENTION SPECIFICATIONS

1. MATERIAL SPECIFICATIONS
THE ALLOWABLE MATERIALS TO BE USED IN THE MICRO-BIORETENTION AREA ARE DETAILED BELOW.

2. BIORETENTION SOIL MIX (BSM)

- THE SOIL SHALL BE A HOMOGENEOUS MIXTURE AS FOLLOWS:

 a. COMPONENTS: BSM SHALL BE COMPOSED OF SAND, FURNISHED TOPSOIL,
- AND HARDWOOD MULCH. BSM MAY INCLUDE APPROVED SOIL AMENDMENTS.
 NO OTHER COMPONENTS SHALL BE USED.

 SAND: SAND SHALL BE WASHED SILICA SAND THAT CONFORMS TO ASTM
 C-33 OR ASTM M-6 WITH LESS THAN 1% BE WEIGHT OF ANY
- COMBINATION OF DIABASE, GREYSTONE, CALCAREOUS, OR DOLOMITIC SAND.

 FURNISHED TOPSOIL: A NATURAL, FRIABLE, SURFACE SOIL THAT IS UNIFORM IN COLOR AND TEXTURE, AND NOT DERIVED FROM THE PROJECT. PRODUCERS SHALL BE INCLUDED IN THE QUALIFIED PRODUCTS LIST
- PRODUCERS SHALL BE INCLUDED IN THE QUALIFIED PRODUCTS LIST MAINTAINED BY THE ADMINISTRATION FOR FURNISHED TOPSOIL. SEE SHA SPECIFICATION 920.01.02 FOR MORE INFORMATION.

 HARDWOOD MULCH: HARDWOOD MULCH SHALL BE THE BARK AND WOOD OF HARDWOOD TREES THAT IS MILLED AND SCREENED TO A UNIFORM
- PARTICLE SIZE OF 2 IN. OR LESS. HARDWOOD MULCH SHALL BE COMPOSTED AND AGED FOR 6 MONTHS OR LONGER WITH NEGLIGIBLE QUANTITY OF SAWDUST AND NO FOREIGN MATERIALS.

 AMENDMENTS: LIMESTONE, SULFUR, AND IRON SULFATE MAY BE USED TO
- ADJUST pH OF BSM. NO OTHER AMENDMENTS SHALL BE USED. SEE SHA SPECIFICATION 920.02 FOR MORE INFORMATION.
- b. COMPOSITION: BSM SHALL CONFORM TO THE FOLLOWING:

COMPOSITION - BIORETENTION SOIL MIX (BSM)				
TEST PROPERTY	TEST VALUE			
WEEDS	FREE OF SEED AND VIABLE PLANT PARTS OF SPECIES IN SHA SPECIFICATION 920.06.02(a)(b)(c) WHEN INSPECTED.			
DEBRIS	NO OBSERVABLE CONTENT OF CEMENT, CONCRETE, ASPHALT. CRUSHED GRAVEL, OR CONSTRUCTION DEBRIS.			•
HARDWOOD MULCH	20% OF THE LOOSE VOLUME OF BSM WHEN INSPECTED.			SPECTED.
	PARTICLE		% PASSING BY WEIGHT	
	SIZE	mm	MINIMUM	MAXIMUM
TEXTURAL ANALYSIS	SAND	2.0 - 0.05	55	85
	SILT	0.05 - 0.002	1	20
	CLAY	LESS THAN 0.002	1	8
SOIL pH	pH OF 5.7 TO 7.4			
ORGANIC MATERIAL	MINIMUM 1.5% BY WEIGHT.			
SOLUBLE SALTS	500 ppm (1.25 mmhos/cm) OR LESS			

c. STORAGE: BSM SHALL BE STORED AT A SPECIFIC, IDENTIFIABLE SITE IN A STOCKPILE CONSTRUCTED AS SPECIFIED IN SHA SPECIFICATION 308.03.28 AND 701.03.02(c).

HARMFUL MATERIALS | SEE SHA SPECIFICATION 920.01.01(a)

- d. APPROVAL: TESTS SHALL BE COMPLETED AND APPROVAL WILL BE GRANTED BEFORE BSM IS DELIVERED. ENSURE THAT FORM 27B HAS BEEN COMPLETED AND THAT A SOURCE OF SUPPLY LETTER FOR THE BSM SOIL HAS BEEN SUBMITTED AND APPROVED.
- e. CERTIFICATION AND DELIVERY: CERTIFICATION SHALL BE SUBMITTED THAT THE BSM IS DELIVERED FROM AN APPROVED STOCKPILE. A BILL OF LADING OR OTHER ACCEPTABLE DOCUMENTATION THAT IDENTIFIES THAT APPROVED SOURCE OF SUPPLY SHALL BE SUBMITTED WHEN BSM IS DELIVERED.

3. COMPACTION

IT IS VERY IMPORTANT TO MINIMIZE COMPACTION OF BOTH THE BASE OF THE BIORETENTION AREA AND THE REQUIRED BACKFILL. WHEN POSSIBLE, USE EXCAVATION HOES TO REMOVE ORIGINAL SOIL. IF BIORETENTION AREAS ARE EXCAVATED USING A LOADER, THE CONTRACTOR SHOULD USE WIDE TRACK OR MARSH TRACK EQUIPMENT, OR LIGHT EQUIPMENT WITH TURF TYPE TIRES. USE OF EQUIPMENT WITH NARROW TRACKS OR NARROW TIRES, RUBBER TIRES WITH LARGE LUGS, OR HIGH PRESSURE TIRES WILL CAUSE EXCESSIVE COMPACTION RESULTING IN REDUCED INFILTRATION RATES AND IS NOT ACCEPTABLE. COMPACTION WILL SIGNIFICANTLY CONTRIBUTE TO DESIGN FAILURE.

COMPACTION CAN BE ALLEVIATED AT THE BASE OF THE BIORETENTION FACILITY BY USING A PRIMARY TILLING OPERATION SUCH AS A CHISEL PLOW, RIPPER, OR SUBSOILER. THESE TILLING OPERATIONS ARE TO REFRACTURE THE SOIL PROFILE THROUGH THE 12 INCH COMPACTION ZONE. SUBSTITUTE METHODS MUST BE APPROVED BY THE ENGINEER. ROTOTILLERS TYPICALLY DO NOT TILL DEEP ENOUGH TO REDUCE THE EFFECTS OF COMPACTION FROM HEAVY EQUIPMENT.

ROTOTILL 2 TO 3 INCHES OF SAND INTO THE BASE OF THE BIORETENTION FACILITY BEFORE BACKFILLING THE OPTIONAL SAND LAYER. PUMP ANY PONDED WATER BEFORE PREPARING (ROTOTILLING) BASE.

WHEN BACKFILLING THE TOPSOIL OVER THE SAND LAYER, FIRST PLACE 3 TO 4 INCHES OF TOPSOIL OVER THE SAND, THEN ROTOTILL THE SAND/TOPSOIL TO CREATE A GRADATION ZONE. BACKFILL THE REMAINDER OF THE TOPSOIL TO FINAL GRADE

WHEN BACKFILLING THE BIORETENTION FACILITY, PLACE SOIL IN LIFTS 12 TO 18 DO NOT USE HEAVY EQUIPMENT WITHIN THE BIORETENTION BASIN. HEAVY EQUIPMENT CAN BE USED AROUND THE PERIMETER OF THE BASIN TO SUPPLY SOILS AND SAND. GRADE BIORETENTION MATERIALS WITH LIGHT EQUIPMENT SUCH AS A COMPACT LOADER OR A DOZER/LOADER WITH MARSH

4. PLANT MATERIAL

SEE LANDSCAPE PLAN FOR PLANTING INFORMATION.

5. PLANT INSTALLATION

COMPOST IS A BETTER ORGANIC MATERIAL SOURCE, IS LESS LIKELY TO FLOAT, AND SHOULD BE PLACED IN THE INVERT AND OTHER LOW AREAS. MULCH SHOULD BE PLACED IN SURROUNDING TO A UNIFORM THICKNESS OF 2" TO 3". SHREDDED OR CHIPPED HARDWOOD MULCH IS THE ONLY ACCEPTED MULCH. PINE MULCH AND WOOD CHIPS WILL FLOAT AND MOVE TO THE PERIMETER OF THE BIORETENTION AREA DURING A STORM EVENT AND ARE NOT ACCEPTABLE. SHREDDED MULCH MUST BE WELL AGED (6 TO 12 MONTHS) FOR ACCEPTANCE.

ROOTSTOCK OF THE PLANT MATERIAL SHALL BE KEPT MOIST DURING TRANSPORT AND ON-SITE STORAGE. THE PLANT ROOT BALL SHOULD BE PLANTED SO 1/8TH OF THE BALL IS ABOVE FINAL GRADE SURFACE. THE DIAMETER OF THE PLANTING PIT SHALL BE AT LEAST SIX INCHES LARGER THAN THE DIAMETER OF THE PLANTING BALL. SET AND MAINTAIN THE PLANT STRAIGHT DURING THE ENTIRE PLANTING PROCESS. THOROUGHLY WATER GROUND BED COVER AFTER INSTALLATION.

TREES SHALL BE BRACED USING 2"BY 2" STAKES ONLY AS NECESSARY AND FOR THE FIRST GROWING SEASON ONLY. STAKES ARE TO BE EQUALLY SPACED ON THE OUTSIDE OF THE TREE BALL.

GRASSES AND LEGUME SEED SHOULD BE DRILLED INTO THE SOIL TO A DEPTH OF AT LEAST ONE INCH. GRASS AND LEGUME PLUGS SHALL BE PLANTED FOLLOWING THE NON-GRASS GROUND COVER PLANTING SPECIFICATIONS.

THE TOPSOIL SPECIFICATIONS PROVIDE ENOUGH ORGANIC MATERIAL TO ADEQUATELY SUPPLY NUTRIENTS FROM NATURAL CYCLING. THE PRIMARY FUNCTION OF THE BIORETENTION STRUCTURE IS TO IMPROVE WATER QUALITY. ADDING FERTILIZERS DEFEATS, OR AT A MINIMUM, IMPEDES THIS GOAL. ONLY ADD FERTILIZER IF WOOD CHIPS OR MULCH ARE USED TO AMEND THE SOIL. ROTOTILL UREA FERTILIZER AT A RATE OF 2 POUNDS PER 1000 SQUARE FEET.

6. UNDERDRAINS

- UNDERDRAINS SHOULD MEET THE FOLLOWING CRITERIA:
 PIPE— SHOULD BE 4" TO 6" DIAMETER, SLOTTED OR PERFORATED RIGID
 PLASTIC PIPE (ASTMF 758, TYPE PS 28, OR AASHTO-M-278) IN A
 GRAVEL LAYER.
 PERFORATIONS IF PERFORATED PIPE IS USED, PERFORATIONS SHOULD
- BE 3/8" DIAMETER LOCATED 6" ON CENTER WITH A MINIMUM OF FOUR HOLES PER ROW. PIPE SHALL BE WRAPPED WITH A 1/4" (NO. 4 OR 4X4) GALVANIZED HARDWARE CLOTH.

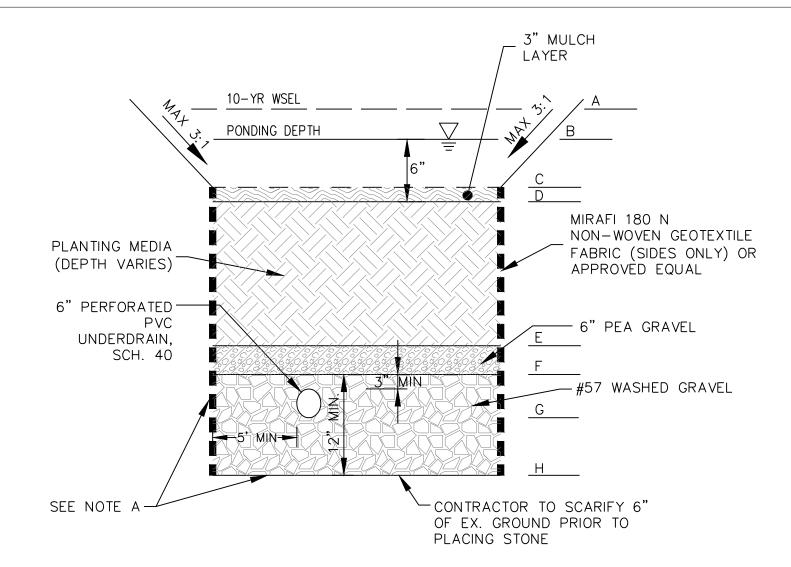
 GRAVEL —THE GRAVEL LAYER (NO. 57 STONE PREFERRED) SHALL BE AT
- THE MAIN COLLECTOR PIPE SHALL BE AT A MINIMUM 0.0% SLOPE.
 A RIGID, NON-PERFORATED OBSERVATION WELL MUST BE PROVIDED (ONE PER EVERY 10,000 SQUARE FEET) TO PROVIDE A CLEAN-OUT PORT AND MONITOR PERFORMANCE OF THE FILTER.
- A 4"LAYER OF PEA GRAVEL SHALL BE LOCATED BETWEEN THE FILTER MEDIA AND UNDERDRAIN TO PREVENT MIGRATION OF FINES INTO THE UNDERDRAIN. THIS LAYER MAY BE CONSIDERED PART OF THE FILTER BED WHEN BED THICKNESS EXCEEDS 24".

THE MAIN COLLECTOR PIPE FOR UNDERDRAIN SYSTEMS SHALL BE CONSTRUCTED AT A MINIMUM SLOPE OF 0.5%. OBSERVATION WELLS AND/OR CLEAN-OUT PIPES MUST BE PROVIDED (ONE MINIMUM PER EVERY 1000 SQUARE FEET OF SURFACE AREA).

LEAST 3" THICK ABOVE AND BELOW THE UNDERDRAIN.

7. MISCELLANEOUS

THESE PRACTICES MAY NOT BE CONSTRUCTED UNTIL ALL CONTRIBUTING DRAINAGE AREA HAS BEEN STABILIZED.



NOTE:

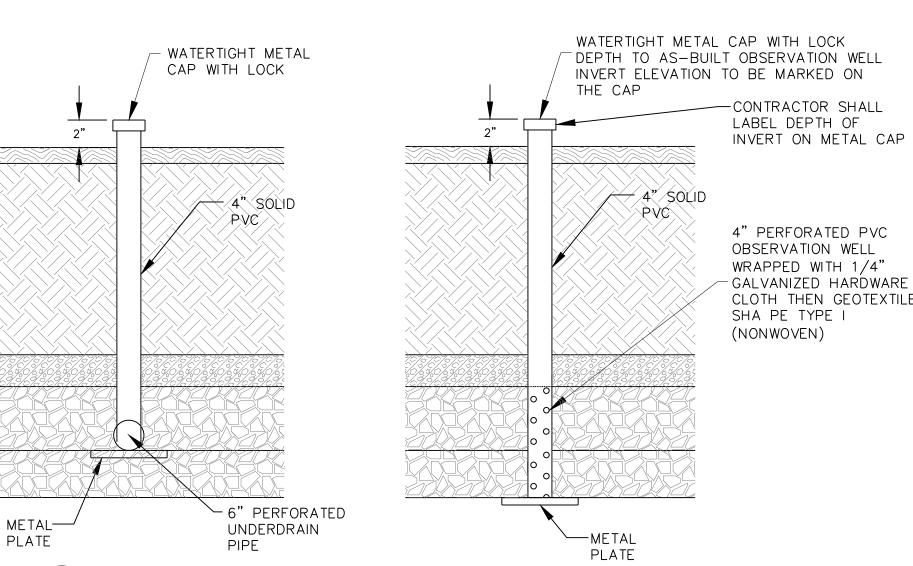
1. ALL PVC TO BE SCHEDULE 40 AT 0.00% SLOPE WITH 3/8" PERFORATIONS LOCATED AT 4" ON CENTER EVERY 90-DEGREES AROUND THE PIPE.

2. SEE CHART FOR PONDING DEPTHS.

3. SEE CHART FOR MICRO-BIORETENTION ELEVATIONS.

MICRO-BIORETENTION - TYPICAL SECTION

N.T.S.



OBSERVATION WELL DETAIL

CLEAN OUT DETAIL

NOTE A:
INSTALL IMPERMEABLE GEOTEXTILE LINER THAT MEETS MDE
TABLE B.3.1 IN APPENDIX B OF THE MDE MANUAL.

- SIZE: 30 MILL THICKNESS
- ASTM-D-4833 (THICKNESS)
- ASTM-D-412 (TENSILE STRENGTH 1,100 LB., ELONGATION 200%)

#57 stone depth (ft)

ASTM-D-624 (TEAR RESISTANCE - 150 LB./IN)
 ASTM-D-471 (WATER ADSORPTION: +8 TO -2% MAS

C	ELL#		1	2
Description	Layer	Depth to next layer (ft)	Elevation	Elevatio
10-YR WSEL	A	0.13	96.13	96.63
ESDv WSEL	В	0.25	96.00	96.50
top of mulch	С	0.25	95.75	96.25
top of filter media	D	varies	95.50	96.00
top of pea gravel (6" layer)	E	0.5	93.50	93.50
top of #57 stone (12" stone layer)	F	1.00	93.00	93.00
Underdrain Invert	G	0.35	92.00	92.00
Facility bottom	Н	-	91.65	91.65
media depth (ft)			2.00	2.50
ponding depth (ft)			0.5	0.5

1.1

1.1

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CITY ENGINEER

COMMUNITY SERVICES DIRECTOR

OWNER / DEVELOPER:

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PLANNING DIRECTOR

HOLLYWOOD DOG PARK 9300 BLOCK 51ST AVENUE (EAST SIDE) COLLEGE PARK, MD 20740



_		- Antibilities
MARK	DATE	DESCRIPTION
PROJE	CT NO:	18-0681.001

SWM	DETAILS

N/A

ABS

SK SAJ

SCALE:

DESIGNED BY

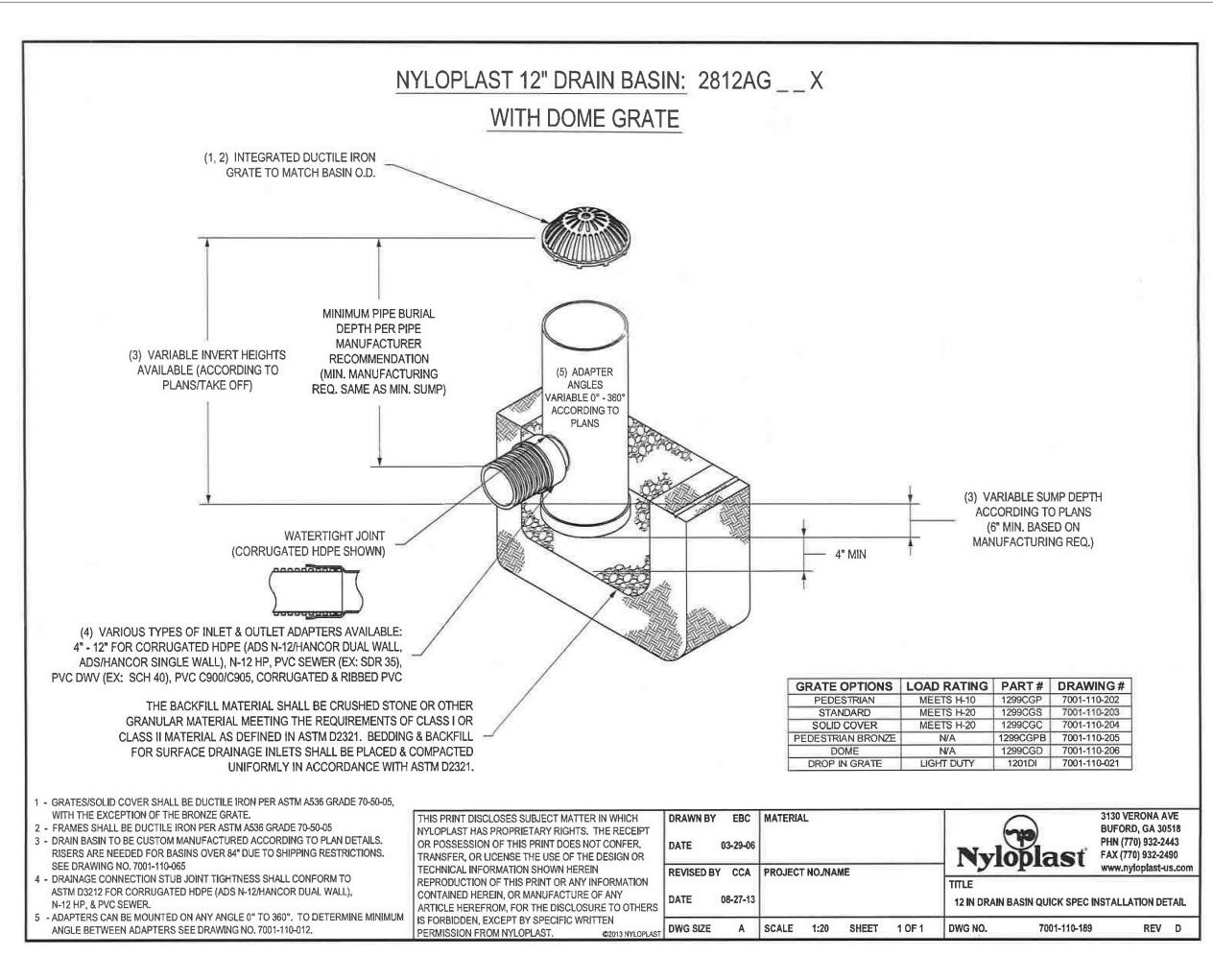
CHECKED BY:

DRAWN BY:

CW-501

MAINTENANCE SCHEDULE FOR MICROBIORETENTION			
DESCRIPTION	METHOD	FREQUENCY	TIME OF YEAR
SOIL			
INSPECT AND REPAIR EROSION	VISUAL	MONTHLY	MONTHLY
ORGANIC LAYER			
REMULCH ANY VOID AREAS	BY HAND	WHENEVER NEEDED	WHENEVER NEEDED
REMOVE PREVIOUS MULCH LAYER BEFORE APPLYING NEW LAYER (OPTIONAL)	BY HAND	ONCE EVERY TWO TO THREE YEARS	SPRING
ANY ADDITIONAL MULCH ADDED (OPTIONAL)	BY HAND	ONCE A YEAR	SPRING
PLANTS			
REMOVAL AND REPLACEMENT OF ALL DEAD AND DISEASED VEGETATION CONSIDERED BEYOND TREATMENT	SEE PLANTING SPECIFICATIONS	TWICE A YEAR	3/15 TO 4/30 AND 10/1 TO 11/3
TREAT ALL DISEASED TREES AND SHRUBS	MECHANICAL OR BY HAND	N/A	VARIES, DEPENDS ON INSECT OR DISEASE INFESTATION
WATERING OF PLANT MATERIAL SHALL TAKE PLACE AT THE END OF EACH DAY FOR FOURTEEN CONSECUTIVE DAYS AFTER PLANTING HAS BEEN COMPLETED	BY HAND	IMMEDIATELY AFTER PROJECT COMPLETION	N/A
REPLACE STAKES AFTER ONE YEAR	BY HAND	ONCE A YEAR	ONLY REMOVE STAKES IN THE SPRING
REPLACE ANY DEFICIENT STAKES OR WIRES	BY HAND	N/A	WHENEVER NEEDED

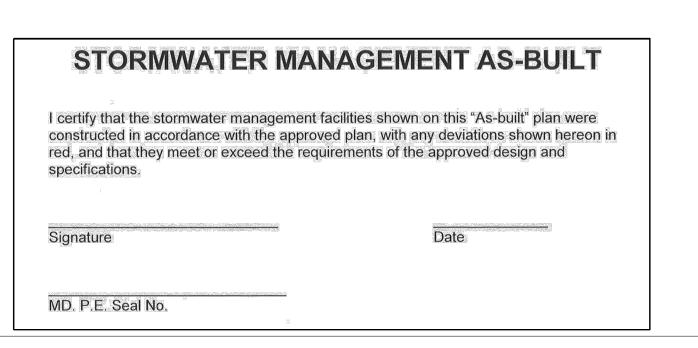
MATERIALS SPECIFICATIONS FOR MICRO-BIORETENTION				
MATERIAL	SPECIFICATION	SIZE	NOTES	
PLANTINGS	SEE LANDSCAPE PLANS	N/A	REFER LANDSCAPE PLANS	
PLANTING SOIL	SHA BSM (920.01.05)	N/A		
ORGANIC CONTENT	MIN. 1.5% BY WEIGHT	N/A		
MULCH	SHREDDED HARDWOOD		AGED 6 MONTHS MIN.; 20% OF THE LOOSE VOLUME OF SOIL MIX.	
PEA GRAVEL DIAPHRAGM	PEA GRAVEL; ASTM-D-448	NO. 8 OR NO. 9 (1/8" TO 3/8")		
GEOTEXTILE	PE TYPE 1 NON-WOVEN		MIRAFI 180N OR APPROVED EQUAL	
GRAVEL	AASHTO M-43	NO. 57 AGGREGATE		
UNDERDRAIN PIPING	F 758, TYPE PS 28 OR AASHTO M-278		PERFORATED PIPE; 3/8" PERFORATIONS @ 4" ON CENTER, 4 HOLES PER ROW; MIN. OF 3" OF GRAVEL OVER PIPES; NOT NECESSARY UNDERNEATH PIPES. PERFORATED PIPE SHALL BE WRAPPED WITH 1/4" GALVANIZED HARDWARE CLOTH.	





DRAIN BASIN

N.T.S.





Prince George's County

Department of Permitting, Inspections and Enforcement

and Enforcement SITE/ROAD PLAN REVIEW DIVISION 9400 Peppercorn Place

Largo, Maryland 20774 301.636.2060 ◆ FAX: 301.925.8510

MICRO BIORETENTION/BIORETENTION CONSTRUCTION INSPECTION CHECKLIST

This checklist serves as a guide for permittee and DPIE Site/Road Inspector to review construction progress verify acceptance before acceptance of device.

Permit No:______ Structure Number: _____

DESCRIPTION OF STAGE DPIE PERMITTEE Preconstruction Meeting: Inspection and approval of each practice is required at these points prior to proceeding with the next step of construction. Contact the DPIE Site/Road Inspector with twenty-four (24) hours' notice (DPIE telephone: 301-883-3820 or the automated inspection request system at 301-883-5390). The DPIE Site/Road Inspector may waive an inspection and allow the permittee per a prior written scheduled arrangement. Work completed without DPIE approval may result in the permittee having to remove and reconstruct the unapproved work. Each of the steps must be verified by either the DPIE Site/Road Inspector and/or the Permittee on their assigns and Excavation for micro bioretention facility conforms to approved Placement of stone backfill and underdrain distribution system, observation well and cleanout conforms to approved plans. Placement of sand, gravel, and soil filter media and installation of filter fabric conforms to approved plans. 4. Connecting pipes, and/or grading conveyance to the facility constructed per the approved plans. 5. Final inspection of grading mulch and permanent stabilization and landscape installation conforms to approved plans.

Total number of Micro Bioretention facilities installed for this inspection:

Required inspection by DPIE Site/Road Inspector.

Date Issued: July 26, 2014



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800 KING FARM BOULEVARD, 4TH FLOOR
ROCKVILLE, MD 20850
PHONE (301) 881-2545 | FAX (301) 881-0814
EMAIL: AMT1@AMTENGINEERING.COM

CONICI	JLTANTS
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CITY MANAGER PUBLIC WORKS DIRECTOR

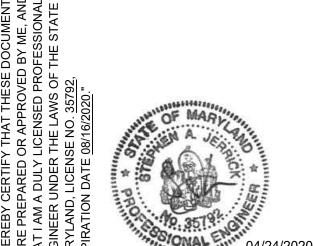
PLANNING DIRECTOR CITY ENGINEER

COMMUNITY SERVICES DIRECTOR

OWNER / DEVELOPER:

CITY OF COLLEGE PARK DEPTMENT OF PUBLIC WORKS 9217 51ST AVE COLLEGE PARK, MD 20740

HOLLYWOOD DOG PARK 9300 BLOCK 51ST AVENUE (EAST SIDE) COLLEGE PARK, MD 20740



WEF THA ENG MAR EXP		04/24/2020
RK	DATE	DESCRIPTION

PROJECT NO: 18-0681.001

SCALE: N/A

DESIGNED BY: ABS

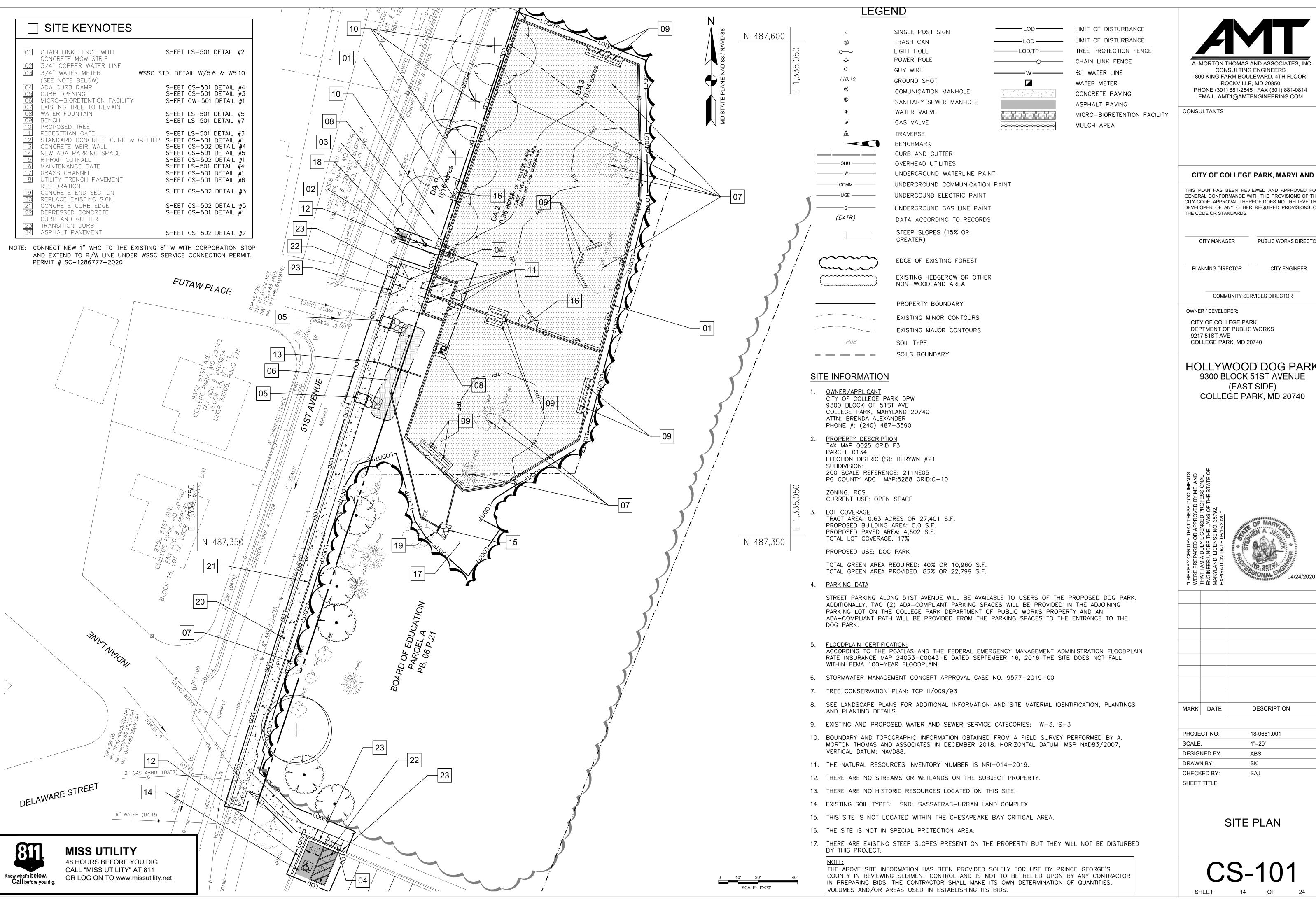
DRAWN BY: SK

CHECKED BY: SAJ

SHEET TITLE

SWM DETAILS

CW-502



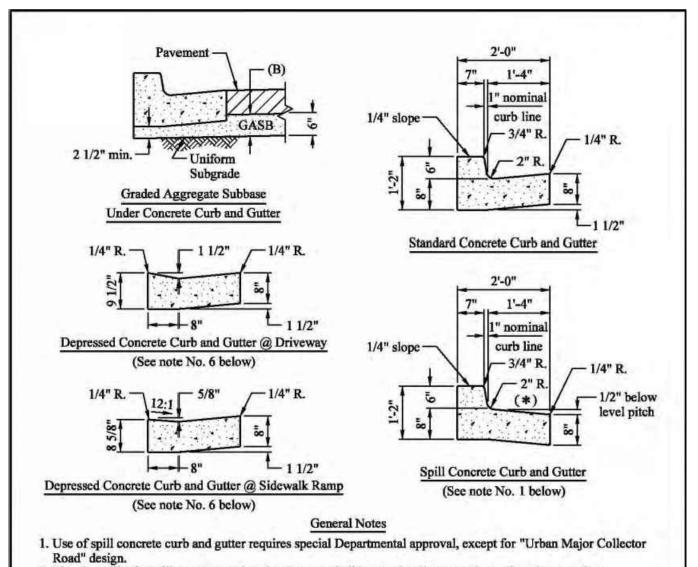
A. MORTON THOMAS AND ASSOCIATES, INC. 800 KING FARM BOULEVARD, 4TH FLOOR PHONE (301) 881-2545 | FAX (301) 881-0814

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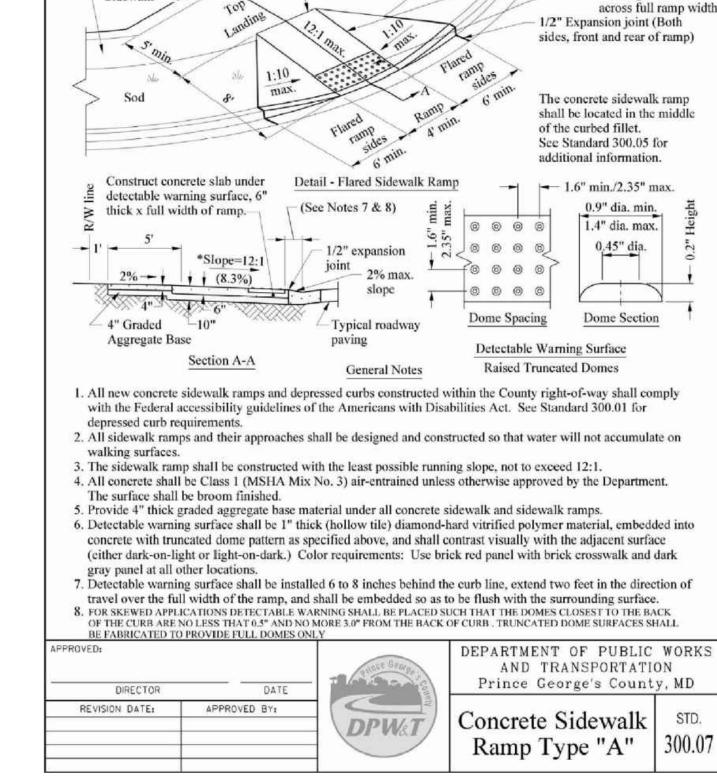
PUBLIC WORKS DIRECTOR

HOLLYWOOD DOG PARK 9300 BLOCK 51ST AVENUE

ARK	DATE	DESCRIPTION		
ROJECT NO:		18-0681.001		
CALE:		1"=20'		
SIGNED BY:		ABS		
RAWN BY:		SK		
IECKED DV:		0.4.1		



Road" design. 2. The slope (*) of 3. Install expansion of curves with le 4. All construction equal to 1/4 of th 5. All concrete shall surface shall be be 6. The depressed co 7. Preformed joint to bitumen content 8. Granite curb and 9. Provide uniform 10. All new construct	a spill concrete curb and a joints using 1/2" preform ss than 100' radii, at struction is shall be located at the depth of the thickness of the Class I (MSHA Mix orush finished. Increte curb and gutter se fillers shall conform to M determined using T 164, gutter may be required usubgrade under entire rose	gutter pan shall be equal to ned non-extruding joint fil ctures, and at midpoints of 10' intervals. The contract of the concrete. No. 3) air-entrained, unle ections shall be used at all 153. The bituminous fib ander certain conditions, adway section.	approval, except for "Urban Major Co to the cross slope of roadway paving. ller, at 100' intervals, at the beginning curb returns. tion joints shall be constructed to a de ess otherwise approved by the Departn driveway aprons and sidewalk ramps. er type joint shall conform to M 213, with Federal accessibility guidelines of	and end pth nent. The
APPROVED:	#1 X2	-	DEPARTMENT OF PUBLIC AND TRANSPORTAT	ION
DIRECTOR REVISION DATE:	DATE APPROVED BY:			ION



CONCRETE SIDE WALK & RAMP

NOT TO SCALE

1/2" Expansion

6'/8' Hiker/Biker Trail

- Typical curb

Contraction joint

-2' x 4' Detectable

warning surfaces

and gutter

Heavy line shown around

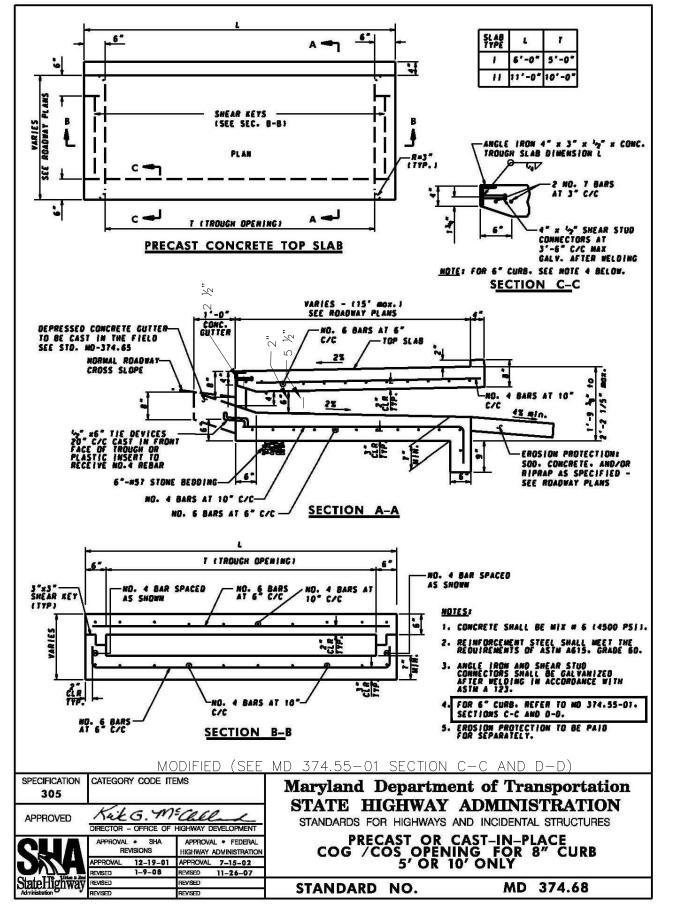
sidewalk ramp denotes

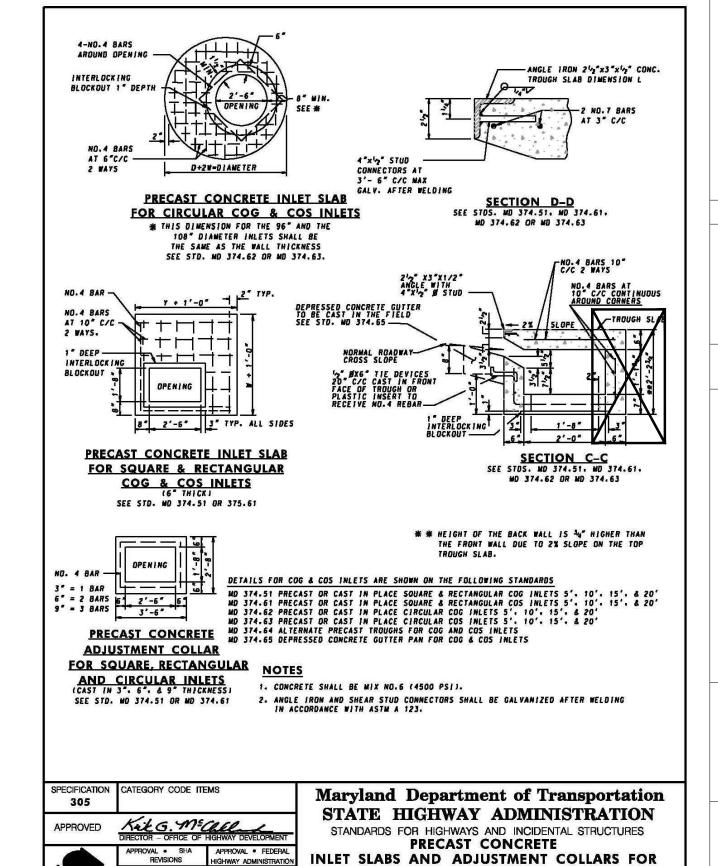
typical 1/2" premolded

4'/5'

Sidewalk

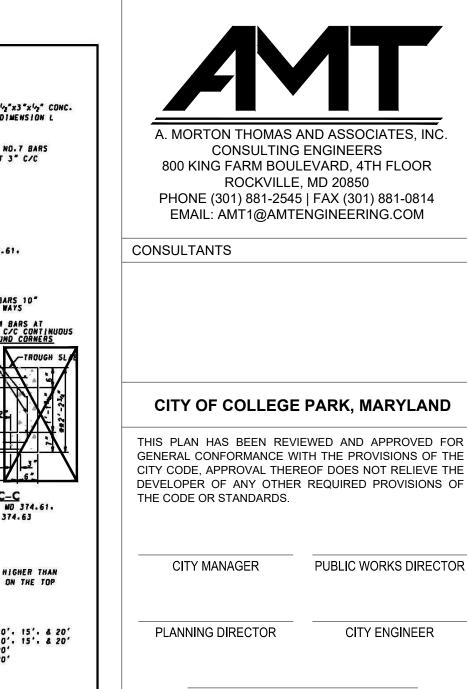
expansion joint placement.





COG/COS INLETS TO ACCOMODATE 6" CURB

STANDARD NO. MD 374.55-01

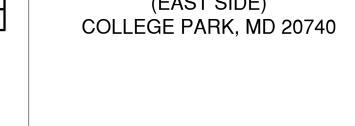


COMMUNITY SERVICES DIRECTOR

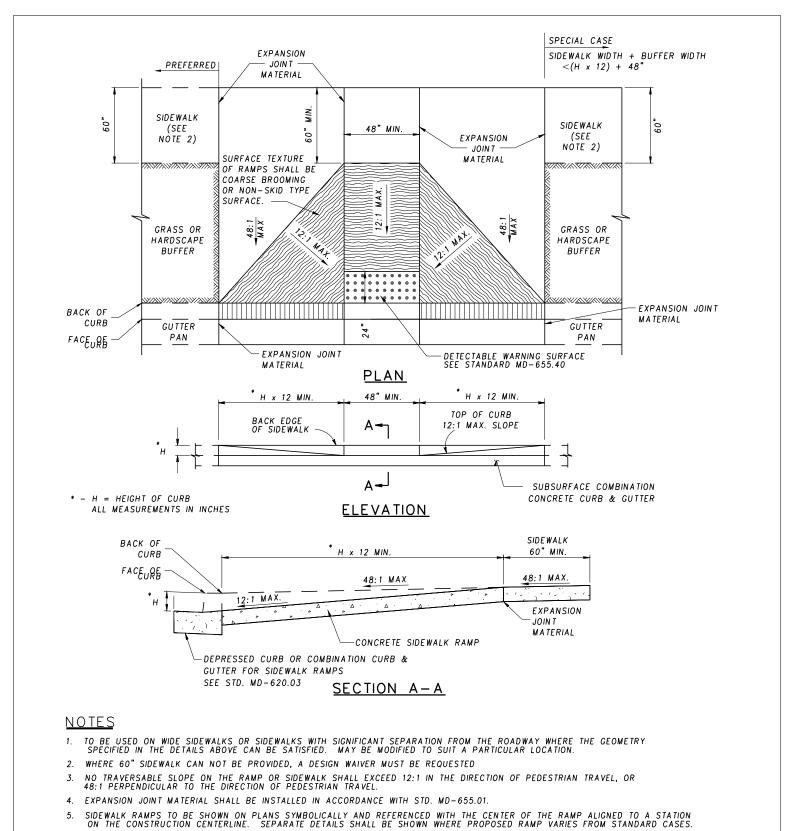
OWNER / DEVELOPER:

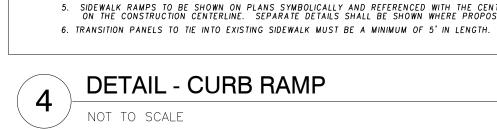
CITY OF COLLEGE PARK DEPTMENT OF PUBLIC WORKS 9217 51ST AVE COLLEGE PARK, MD 20740

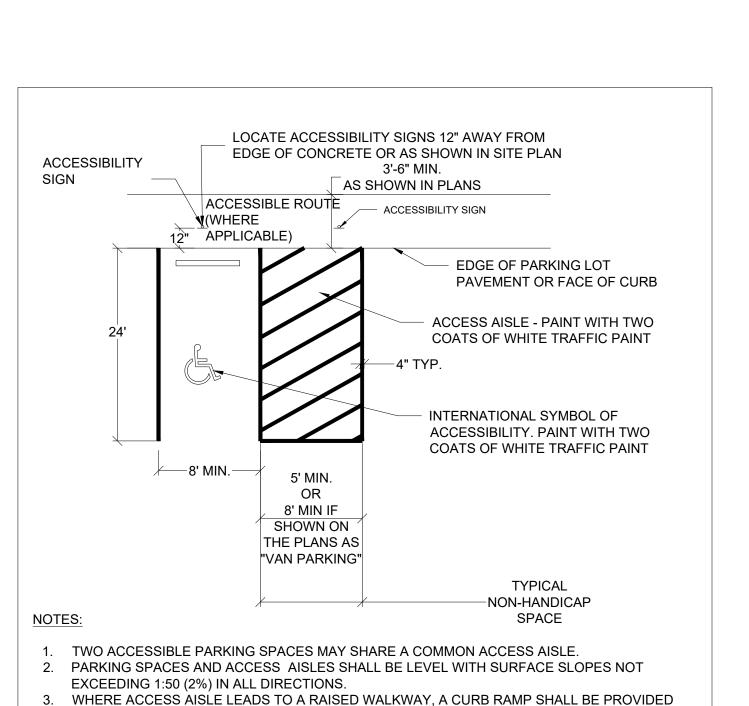
HOLLYWOOD DOG PARK 9300 BLOCK 51ST AVENUE (EAST SIDE)



COG INLET - CURB OPENING NOT TO SCALE

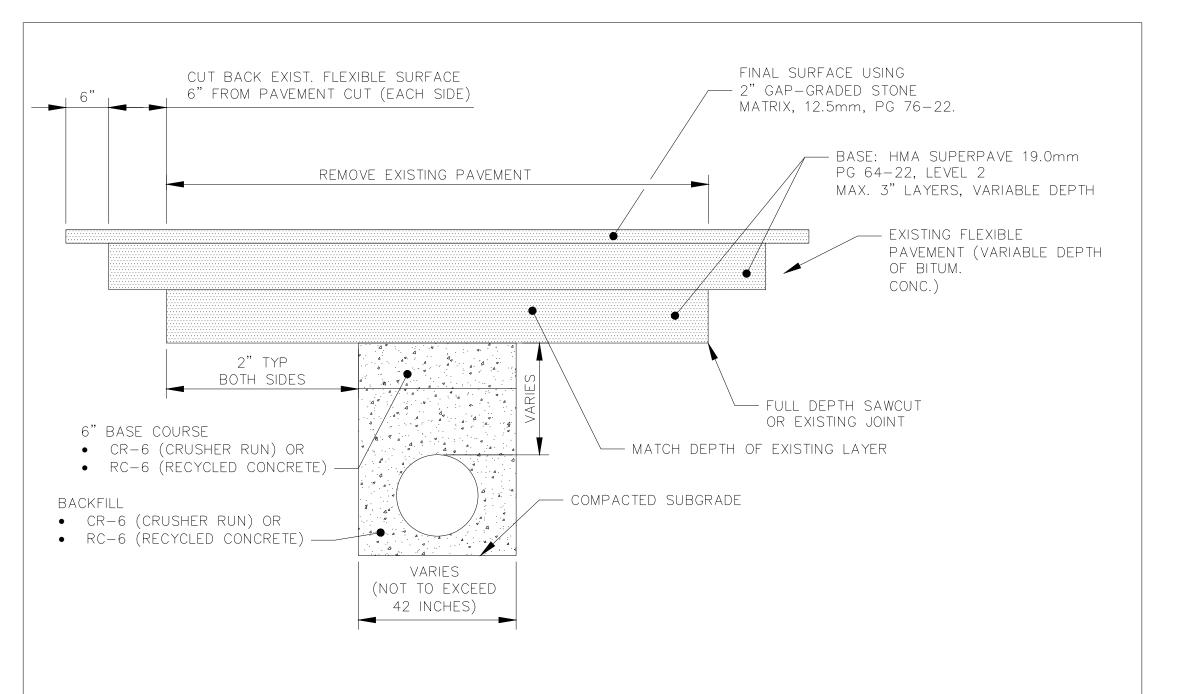




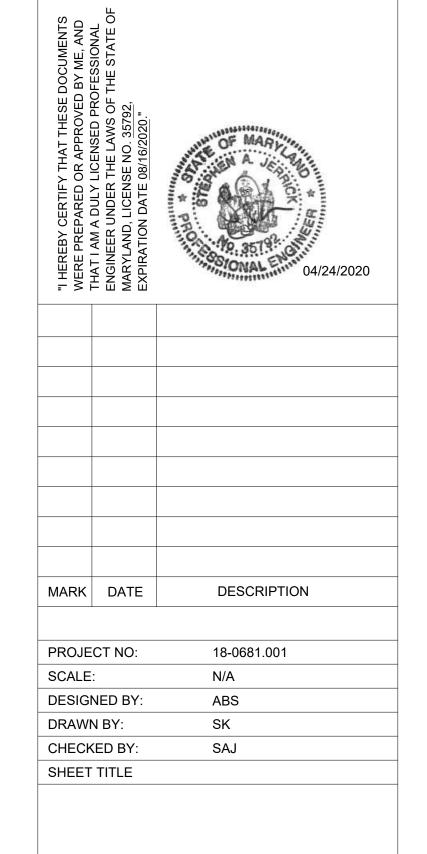




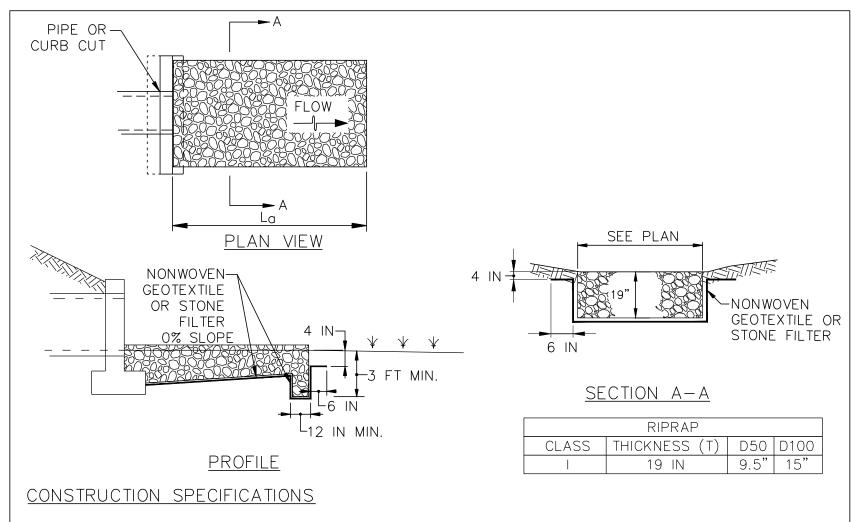
4. MARK ACCESS AISLES TO DISCOURAGE PARKING WITHIN THEM.





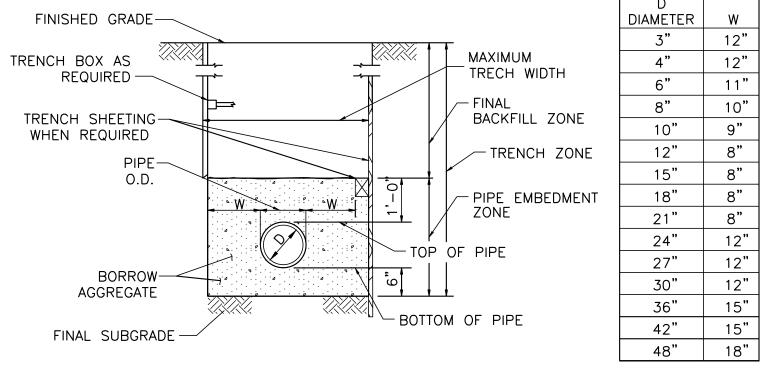


SITE DETAILS

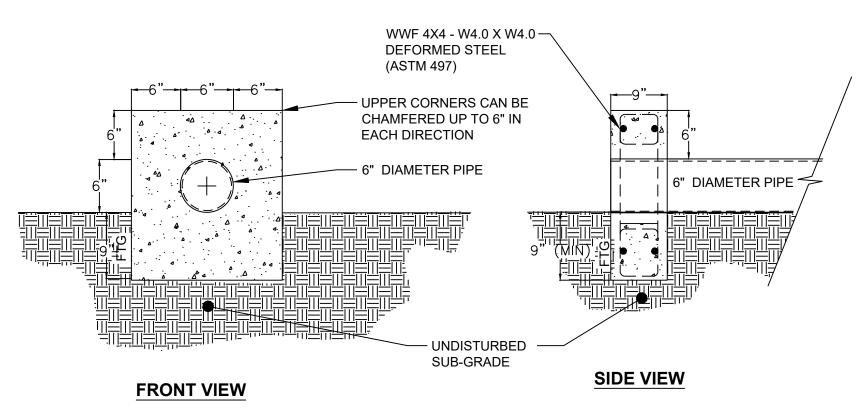


- 1. RIPRAP AND STONE MUST CONFORM TO THE SPECIFIED CLASS.
- 2. USE NONWOVEN GEOTEXTILE, AS SPECIFIED IN SECTION H-1 MATERIALS, AND PROTECT FROM PUNCTURING, CUTTING, OR TEARING. REPAIR ANY DAMAGE OTHER THAN AN OCCASIONAL SMALL HOLE BY PLACING ANOTHER PIECE OF GEOTEXTILE OVER THE DAMAGED PART OR BY COMPLETELY REPLACING THE GEOTEXTILE. PROVIDE A MINIMUM OF ONE FOOT OVERLAP FOR ALL REPAIRS AND FOR JOINING TWO PIECES OF GEOTEXTILE TOGETHER.
- . PREPARE THE SUBGRADE FOR GEOTEXTILE OR STONE FILTER (% TO 1% INCH MINIMUM STONE FOR 6 INCH MINIMUM DEPTH) AND RIPRAP TO THE REQUIRED LINES AND GRADES. COMPACT ANY FILL REQUIRED IN THE SUBGRADE TO A DENSITY OF APPROXIMATELY THAT OF THE SURROUNDING UNDISTURBED MATERIAL.
- 4. EXTEND GEOTEXTILE AT LEAST 6 INCHES BEYOND EDGES OF RIPRAP AND EMBED AT LEAST 4 INCHES AT SIDES OF RIPRAP.
- 5. CONSTRUCT RIPRAP OUTLET TO FULL COURSE THICKNESS IN ONE OPERATION AND IN SUCH A MANNER AS TO AVOID DISPLACEMENT OF UNDERLYING MATERIALS. PLACE STONE FOR RIPRAP OUTLET IN A MANNER THAT WILL ENSURE THAT IT IS REASONABLY HOMOGENOUS WITH THE SMALLER STONES AND SPALLS FILLING THE VOIDS BETWEEN THE LARGER STONES. PLACE RIPRAP IN A MANNER TO PREVENT DAMAGE TO THE FILTER BLANKET OR GEOTEXTILE. HAND PLACE TO THE EXTENT NECESSARY.
- S. WHERE NO ENDWALL IS USED, CONSTRUCT THE UPSTREAM END OF THE APRON SO THAT THE WIDTH IS TWO TIMES THE DIAMETER OF THE OUTLET PIPE, AND EXTEND THE STONE UNDER THE OUTLET BY A MINIMUM OF 18 INCHES.
- . CONSTRUCT APRON WITH 0% SLOPE ALONG ITS LENGTH AND WITHOUT OBSTRUCTIONS. PLACE STONE SO THAT IT BLENDS IN WITH EXISTING GROUND.
- 8. MAINTAIN LINE, GRADE, AND CROSS SECTION. KEEP OUTLET FREE OF EROSION. REMOVE ACCUMULATED SEDIMENT AND DEBRIS. AFTER HIGH FLOWS INSPECT FOR SCOUR AND RIPRAP DISLODGED RIPRAP. MAKE NECESSARY REPAIRS IMMEDIATELY.

ROCK OUTLET PROTECTION



STORM DRAIN PIPE TRENCHING



NOTES:

- 1. CONCRETE: MD SHA MIX #3.
- 2. USE LATEST MD SHA SPECIFICATIONS FOR ALL STEEL AND CONCRETE
- 3. CHAMFER: ALL EXPOSED EDGES 1" X 1" OR AS DIRECTED.

CONCRETE END SECTION DETAIL

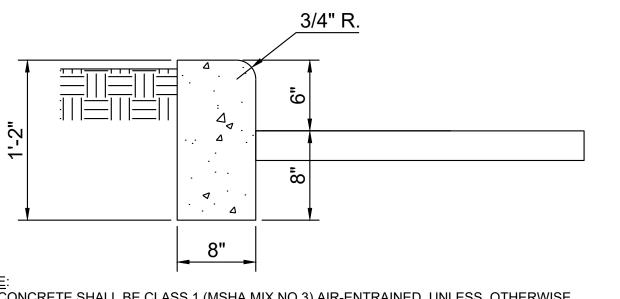
#4, TYP. AT NOTCH, SEE PLAN CORNERS FOR LOCATION LENGTH PER PLAN-EJ, BOTH SIDES GRADE UNDERDRAIN #4 @12" O.C. FOOTING **EXISTING** SUBGRADE ELEVATION

SPLASH BLOCK: 24"x24" NOM. PREST PAVERS BY HANOVER ARCHITECTURAL WATER SURFACE PRODUCTS OR APPROVED **ELEVATION EQUAL** TOP OF PAVEMENT CONCRETE WEIR #4 @12" O.C. — UNDERDRAIN -**EXISTING SUBGRADE** SECTION A-A 4. UNLESS OTHERWISE SPECIFIED, CONCRETE WORKMANSHIP SHALL BE

LOCATIONS AND HEIGHTS OF WEIRS CAN BE FOUND ON THE PLANS WEIRS TO BE CONTINUOUS CONCRETE WITHOUT JOINTS 3. UNDERDRAIN TO PASS THROUGH WEIR IN A NON-PERFORATED PVC

- AS DESCRIBED UNDER CONSTRUCTION METHODS & MATERIALS-CONCRETE IN THE "CONSTRUCTION & MATERIALS SPECIFICATION FOR UTILITY AND ROADWAY CONSTRUCTION" MANUAL LATEST REVISION.
- 5. ALL REBAR TO BE MIN. 2" CLR

CONCRETE WEIR WALL



ALL CONCRETE SHALL BE CLASS 1 (MSHA MIX NO.3) AIR-ENTRAINED, UNLESS OTHERWISE APPROVED BY PRINCE GEORGE'S COUNTY DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION. THE SURFACE SHALL BE BRUSH FINISHED.



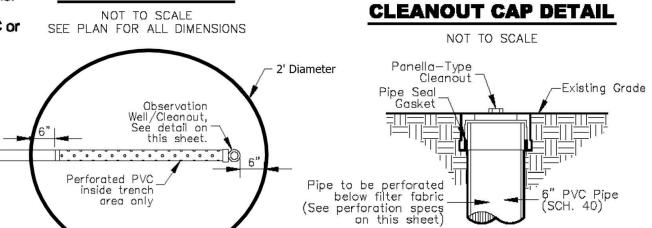
PLAN VIEW

NOTES:

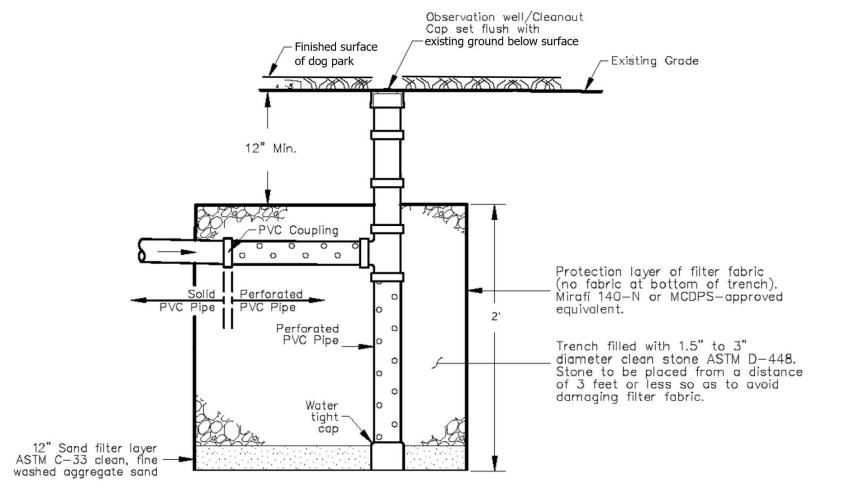
- Manufactured sand is not acceptable in drywells.
- All perforated pipes must be Schedule 40 PVC or higher quality, 4 inch diameter minimum.

PERFORATED PIPE:

- Schedule 40 PVC 3/8 Inch Holes
- 4 Inch on center
- 90° around pipe

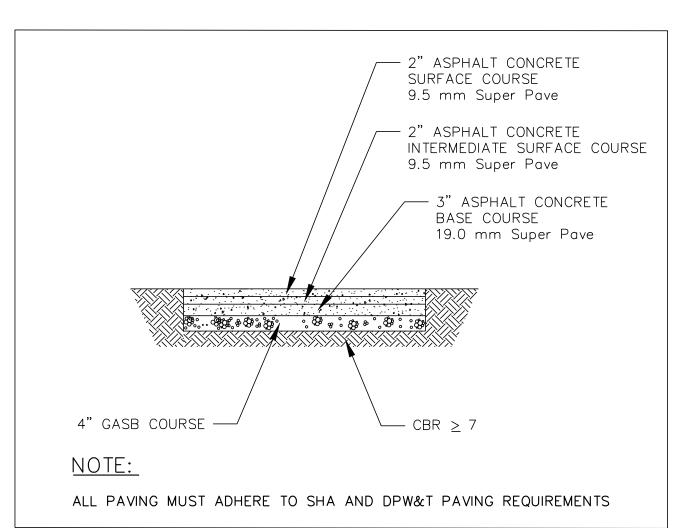


OBSERVATION WELL



SECTION VIEW NOT TO SCALE SEE PLAN FOR ALL DIMENSIONS









CONSULTANTS

CITY OF COLLEGE PARK, MARYLAND

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CITY MANAGER PUBLIC WORKS DIRECTOR

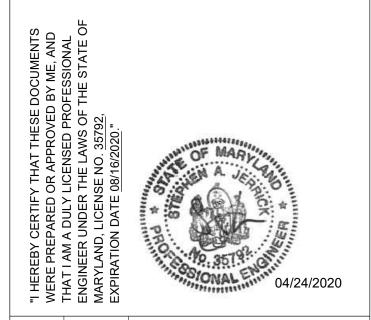
PLANNING DIRECTOR CITY ENGINEER

COMMUNITY SERVICES DIRECTOR

OWNER / DEVELOPER:

CITY OF COLLEGE PARK DEPTMENT OF PUBLIC WORKS 9217 51ST AVE COLLEGE PARK, MD 20740

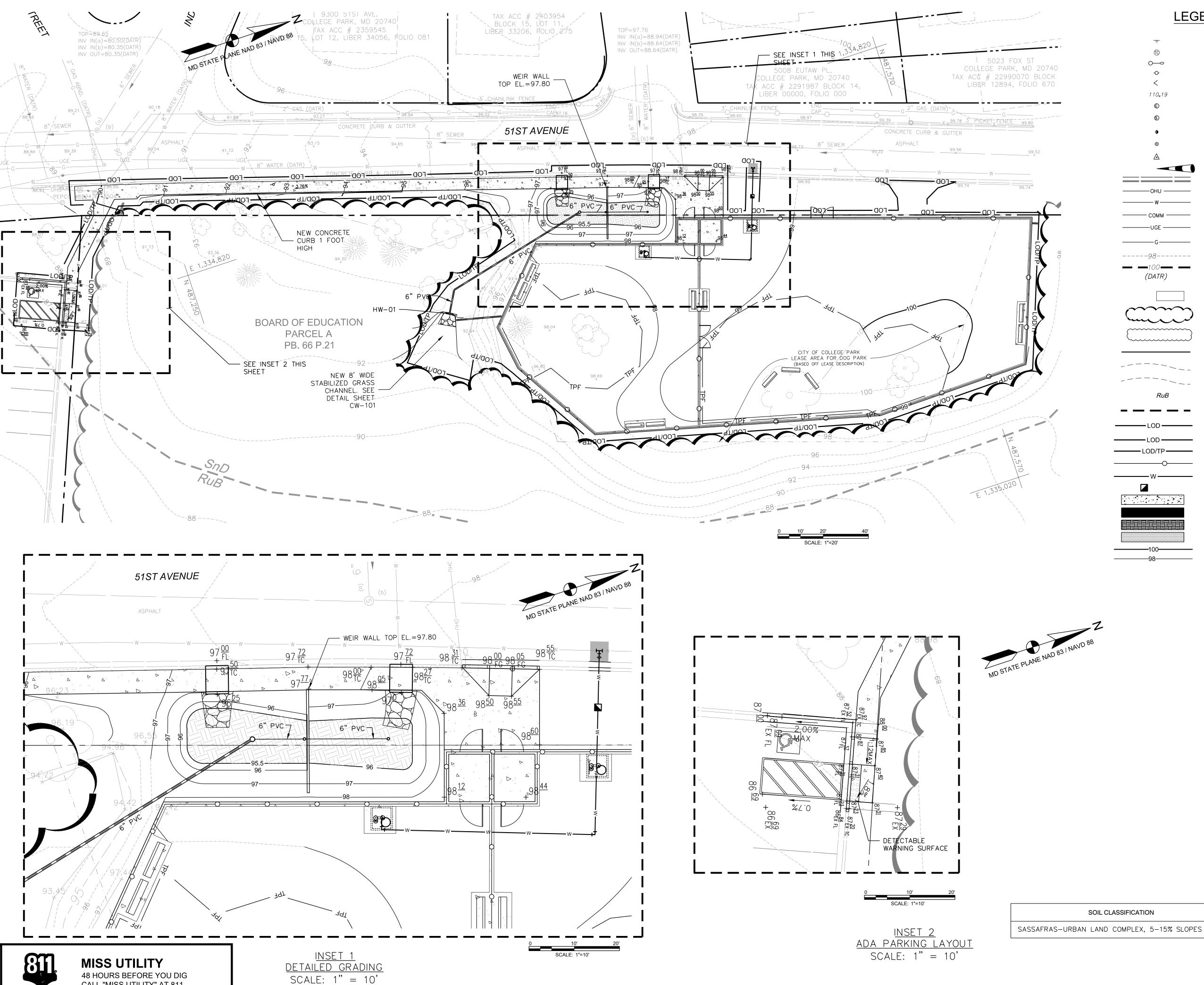
HOLLYWOOD DOG PARK 9300 BLOCK 51ST AVENUE (EAST SIDE) COLLEGE PARK, MD 20740



DESCRIPTION MARK DATE PROJECT NO: 18-0681.001 SCALE: N/A DESIGNED BY ABS DRAWN BY: SK SAJ CHECKED BY:

SITE DETAILS

SHEET TITLE



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LEGEND		
-o-	SINGLE POST SIGN	
©	TRASH CAN	
○	LIGHT POLE	
•	POWER POLE	
<	GUY WIRE	
110 _× 19	GROUND SHOT	
©	COMUNICATION MANHOLE	
S	SANITARY SEWER MANHOLE	
•	WATER VALVE	
⊚	GAS VALVE	
\triangle	TRAVERSE	
	BENCHMARK	
	CURB AND GUTTER	
—ОНИ ———	OVERHEAD UTILITIES	
w	UNDERGROUND WATERLINE PAINT	
— сомм ———	UNDERGROUND COMMUNICATION PAI	
—UGE ———	UNDERGOUND ELECTRIC PAINT	
G	UNDERGROUND GAS LINE PAINT	
98	EX MINOR CONTOUR	
— 100 — 	EX MAJOR CONTOUR	
(DATR)	DATA ACCORDING TO RECORDS	
	STEEP SLOPES (15% OR	
	GREATER)	
	EDGE OF EXISTING FOREST	
	EXISTING HEDGEROW OR OTHER	
	NON-WOODLAND AREA	
	PROPERTY BOUNDARY	
	EXISTING MINOR CONTOURS	
	EXISTING MAJOR CONTOURS	
RuB	SOIL TYPE	
	SOILS BOUNDARY	
- LOD	LIMIT OF DISTURBANCE	
-LOD	LIMIT OF DISTURBANCE	
LOD/TP——	TREE PROTECTION FENCE	
	CHAIN LINK FENCE	
— w ———	¾" WATER LINE	
2	WATER METER	
	CONCRETE PAVING	
	ASPHALT PAVING	

MICRO-BIORETENTION FACILITY

HYDROLOGIC SOIL GROUP

ABBREVIATION

SnD

MULCH AREA MAJOR CONTOUR MINOR CONTOUR

CONSULTING ENGINEERS 800 KING FARM BOULEVARD, 4TH FLOOR ROCKVILLE, MD 20850 PHONE (301) 881-2545 | FAX (301) 881-0814 EMAIL: AMT1@AMTENGINEERING.COM

CONSULTANTS

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> PUBLIC WORKS DIRECTOR CITY MANAGER

PLANNING DIRECTOR CITY ENGINEER

COMMUNITY SERVICES DIRECTOR

OWNER / DEVELOPER:

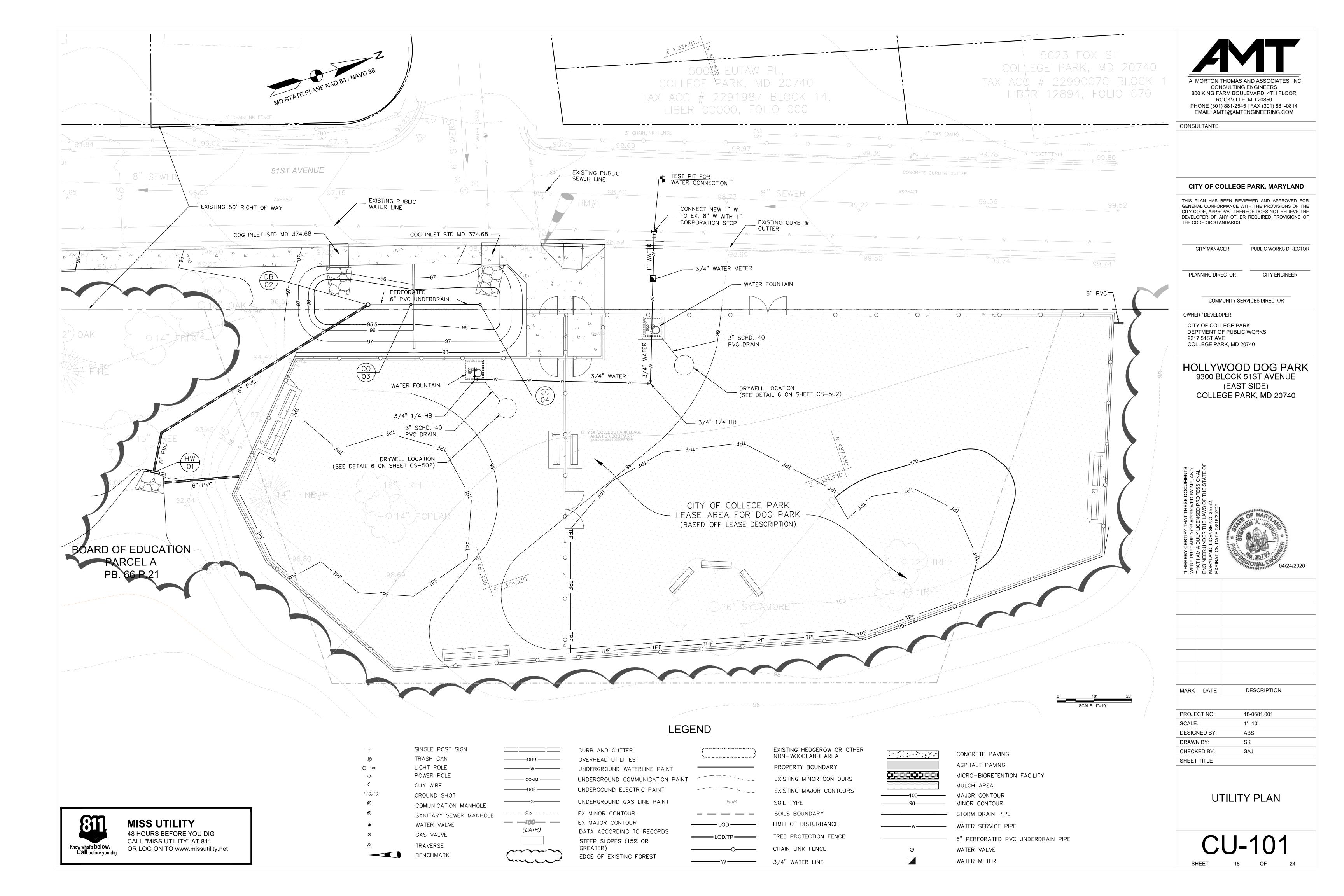
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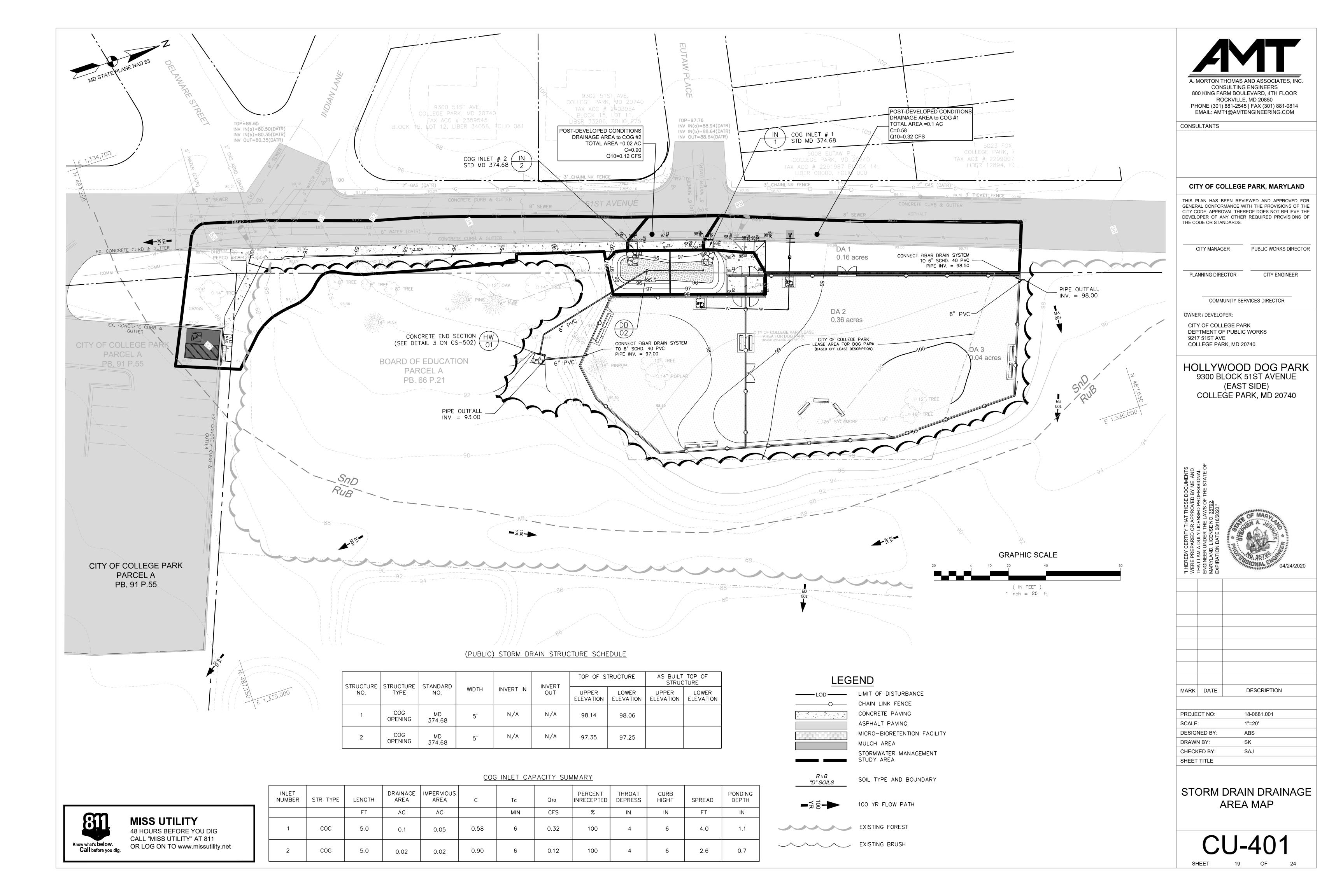
HOLLYWOOD DOG PARK 9300 BLOCK 51ST AVENUE (EAST SIDE) COLLEGE PARK, MD 20740

MARK	DATE	DESCRIPTION
PROJE	CT NO:	18-0681.001

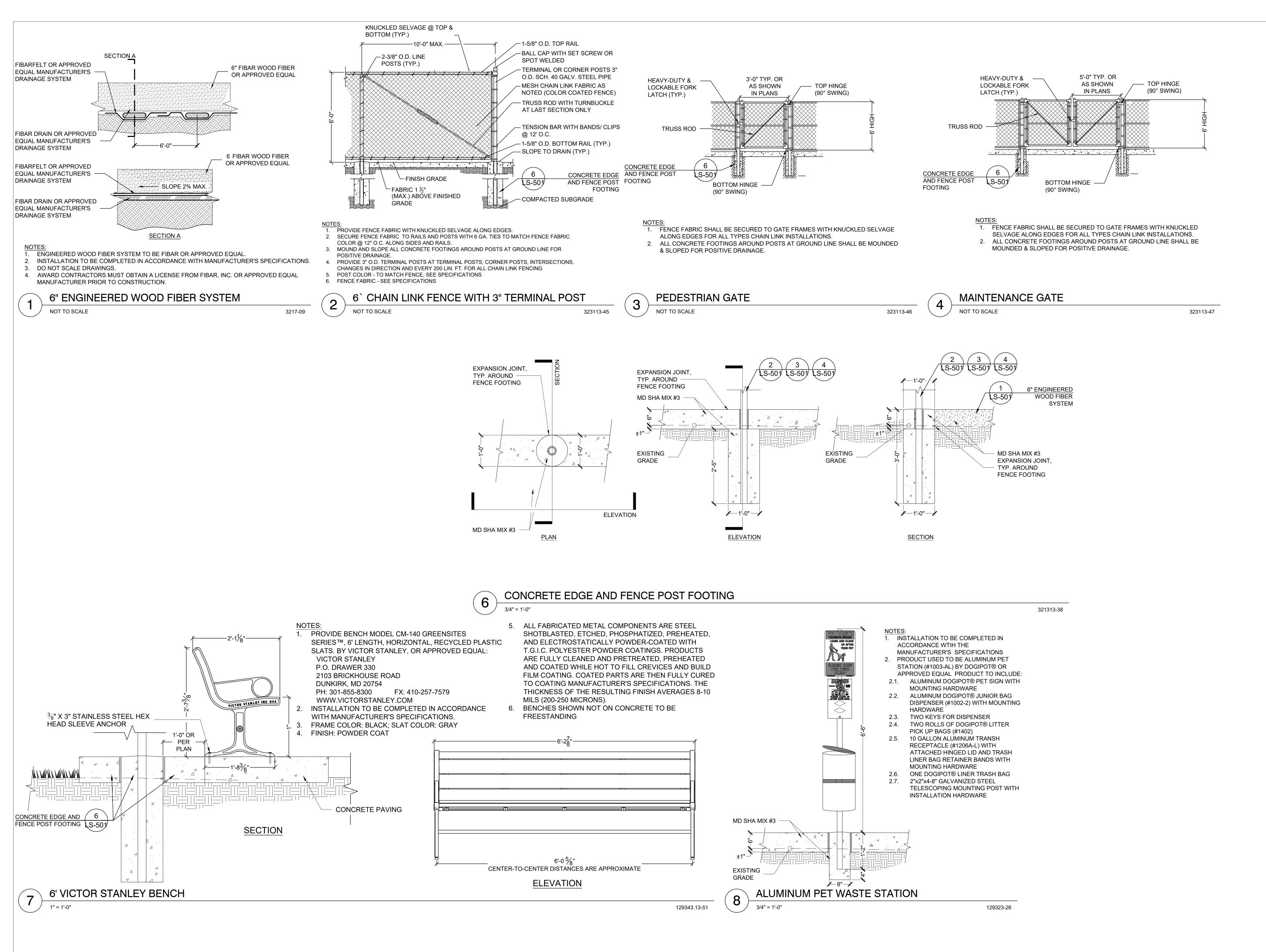
PROJECT NO:	18-0681.001
SCALE:	AS SHOWN
DESIGNED BY:	ABS
DRAWN BY:	SK
CHECKED BY:	SAJ
SHEET TITLE	

GRADING PLAN









A. MORTON THOMAS AND ASSOCIATES, INC.
CONSULTING ENGINEERS
800 KING FARM BOULEVARD, 4TH FLOOR

ROCKVILLE, MD 20850

PHONE (301) 881-2545 | FAX (301) 881-0814

EMAIL: AMT1@AMTENGINEERING.COM

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CITY ENGINEER

PLANNING DIRECTOR

COMMUNITY SERVICES DIRECTOR

OWNER / DEVELOPER:

CITY OF COLLEGE PARK

DEPTMENT OF PUBLIC WORKS

9217 51ST AVE

COLLEGE PARK, MD 20740

HOLLYWOOD DOG PARK 9300 BLOCK 51ST AVENUE (EAST SIDE) COLLEGE PARK, MD 20740

"I HEREBY CERTIFY THAT THESE DOCUMENTS
WERE PREPARED OR APPROVED BY ME, AND
THAT I AM A DULY LICENSED LANDSCAPE
ARCHITECT UNDER THE LAWS OF THE STATE OF
MARYLAND, LICENSE NO. 3381,
EXPIRATION DATE 10-22-2020."

EXPIRATION DATE 10-22-2020."

ON THE STATE OF
MARYLAND, LICENSE NO. 3081,
EXPIRATION DATE 10-22-2020."

EXPIRATION DATE 10-22-2020."

MARK DATE DESCRIPTION

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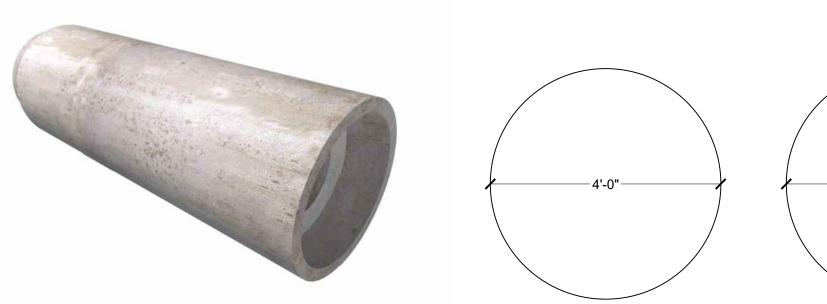
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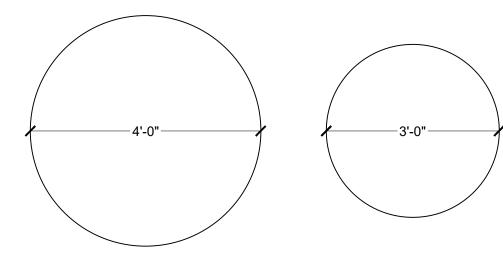
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SHEET TITLE

LANDSCAPE DETAILS

LS-501









3" NYLON REINFORCED

GENERAL NOTES: 1. PROVIDE CUT SHEETS FOR ALL COMPONENTS FOR REVIEW AND APPROVAL BY THE PROJECT OFFICER AND LANDSCAPE ARCHITECT. CONTRACTOR TO COORDINATE LAYOUT OF EACH AGILITY PIECE WITH THE PROJECT OFFICER AND LANDSCAPE ARCHITECT

00-234

CONSULTING ENGINEERS 800 KING FARM BOULEVARD, 4TH FLOOR ROCKVILLE, MD 20850 PHONE (301) 881-2545 | FAX (301) 881-0814 EMAIL: AMT1@AMTENGINEERING.COM

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PUBLIC WORKS DIRECTOR

PLANNING DIRECTOR CITY ENGINEER

COMMUNITY SERVICES DIRECTOR

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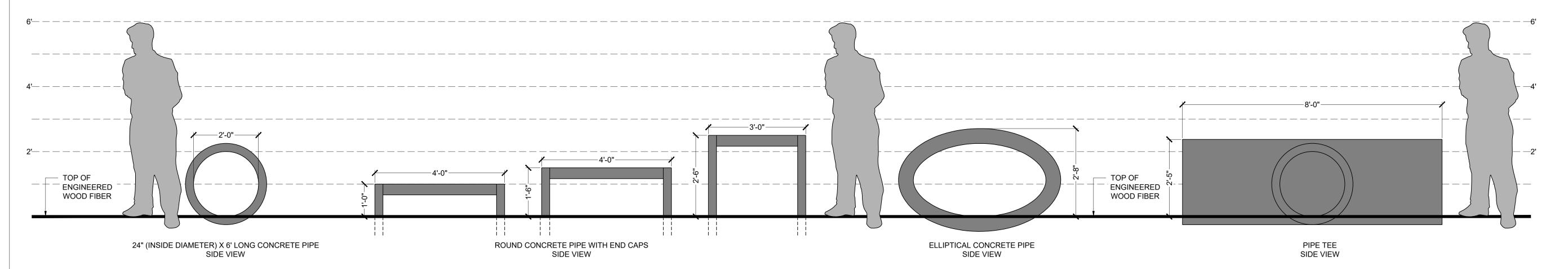
DESIGNED BY: DRAWN BY:

CHECKED BY: SHEET TITLE

> DOG AGILITY **EQUIPMENT DETAILS**

SHEET 22

ROUND CONCRETE PIPE WITH END CAPS 24" (INSIDE DIAMETER) X 6' LONG CONCRETE PIPE PIPE TEE ELLIPTICAL CONCRETE PIPE PLAN VIEW



DOG AGILITY EQUIPMENT

1. THE FOUNTAIN TO BE MODEL 440 SM WITH OPTIONAL PET BOWL FROM MOST DEPENDABLE

FOUNTAINS, INC. (MDF) OR APPROVED EQUAL 2. FOUNTAIN TO BE FROST FREE

3. STAINLESS STEEL PIPE AND ACCESS DOORS (SS; 304 SCHEDULE 10) TO BE POWDER COATED; COLOR

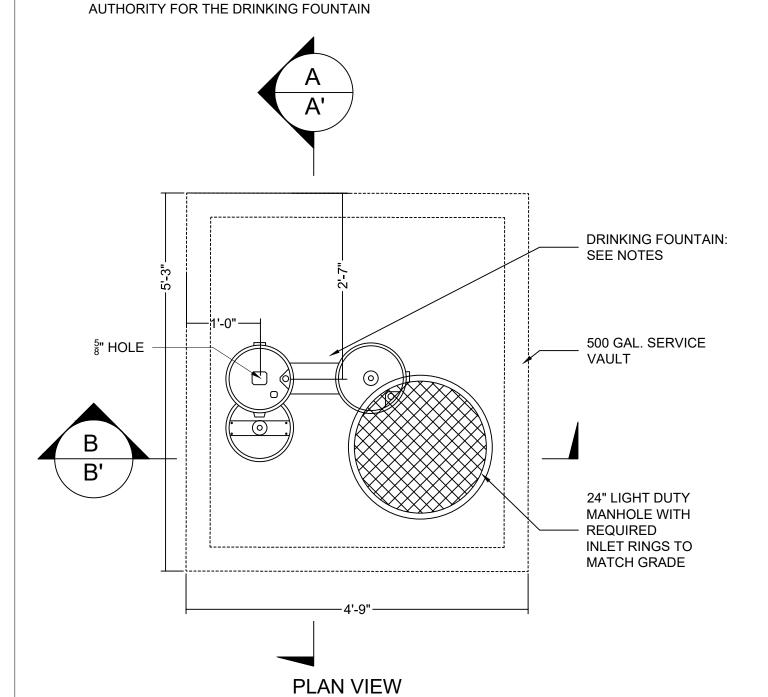
TO BE SELECTED FROM FOUNTAIN MANUFACTURER'S FULL LINE OF COLORS BY OWNER 4. ACCESS DOORS CONNECTED TO FOUNTAIN WITH VANDAL RESISTANT BOLTS PROVIDED BY

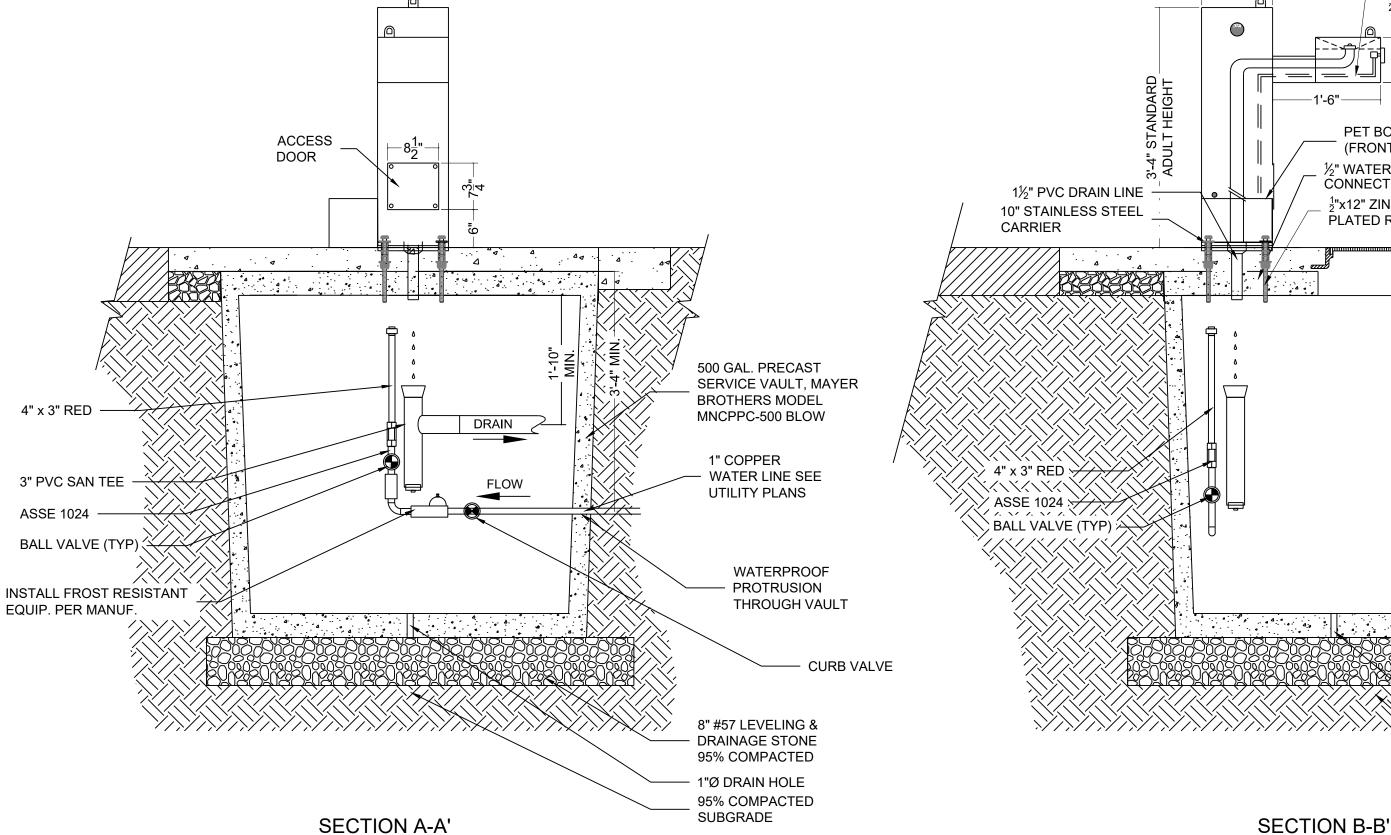
MANUFACTURER 5. INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS &

OWNER DIRECTION

6. MINOR ADJUSTMENT TO THE PLUMBING MAY BE COMPLETED AFTER APPROVAL FROM THE

CONSTRUCTION MANAGER 7. PACK ALL PERFORATIONS IN THE CONCRETE VAULT WITH POLYMER MODIFIED NON-SHRINK GROUT 8. THE CONTRACTOR SHALL COORDINATE ALL TRADE PERMITS WITH THE APPROPRIATE SERVICE





NYLONBRAID TUBING WITH ¹/₂" MIP SUPPLY WATER PET BOWL (FRONT) ½" WATER 24" LIGHT DUTY MANHOLE CONNECTION WITH REQUIRED INLET ½"x12" ZINC RINGS TO MATCH GRADE PLATED ROD 500 GAL. PRECAST SERVICE VAULT, MAYER BROTHERS MODEL MNCPPC-500 BLOW 8" #57 LEVELING & DRAINAGE STONE, >//>//>/ 95% COMPACTED - 1"Ø DRAIN HOLE

DOG PARK DRINKING FOUNTAIN

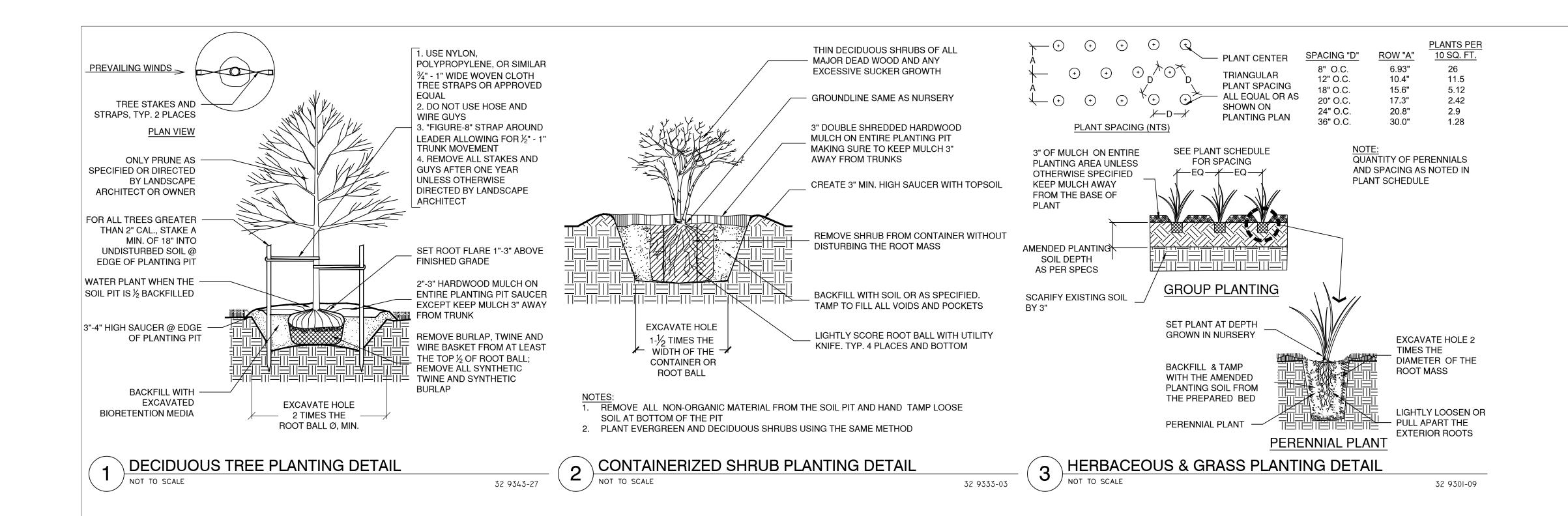
3/4" = 1'-0"

22 47-07

95% COMPACTED

SUBGRADE







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EMAIL: AMT1@AMTENGINEERING.COM

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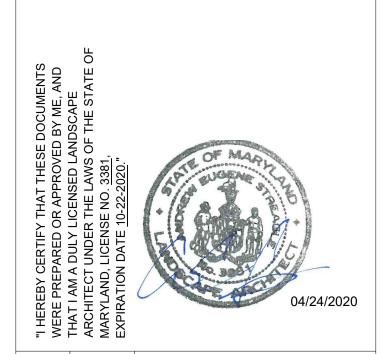
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9217 51ST AVE
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MARK DATE DESCRIPTION

PROJECT NO: 18-0681.001

SCALE: N/A

DESIGNED BY:

DRAWN BY:

CHECKED BY:

SHEET TITLE

PLANTING DETAILS

LP-501
SHEET 24 OF